

FALL 1971

(FOR SEPTEMBER, OCTOBER AND NOVEMBER)
Next Issue December 1, 1971



radio amateur

callbook

magazine



Photo courtesy Rhode Island Development Council

RHODE ISLAND

Even though it is the smallest of the 50 states, 1,058 square miles, Rhode Island holds a distinguished place in American history as the thirteenth of the original 13 states to ratify our Constitution.

While highly industrialized, Rhode Island is also a favorite vacation area, offering such attractions as Mohegan Bluffs on Block Island. Shaped like a pork chop, Block Island sits 12 miles off the mainland in the Atlantic Ocean. A famous spot for record catches, Block Island is a fisherman's paradise—not only offering deep sea fishing but its numerous fresh water ponds offers a wide variety of fish for the sportsman. The Southeast Point Lighthouse, shown above, was first lighted in 1875 and is one of the strongest beacons and most important lights on the New England coast.

There are 1,501 licensed radio amateurs in "Little Rhody"

in this issue

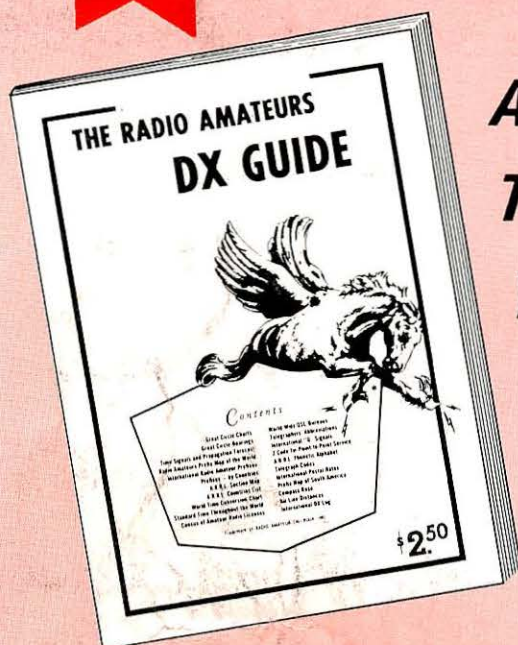
- 287,655 U.S. licensed radio amateurs, including 5,536 new licenses issued by FCC since the Summer 1971 issue.
- Over 30,000 changes in listings.
- ZIP CODES and LICENSE CLASS on all listings.
- STOP PRESS — late QTH's.
- THEN & NOW — Call letter changes.
- SILENT KEYS deleted from this issue.
- QSL MANAGERS AROUND THE WORLD.
- Radio Amateur prefixes of the world, with map, A.R.R.L. countries list.
- Great circle bearings, postal information, standard time charts, codes, "Q" signals . . . and many other features.

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**11th
EDITION**

RADIO AMATEURS

DX GUIDE



**ADD
TO
YOUR
DXing Pleasure!**

The DX Guide is a handy reference manual containing valuable information for every radio amateur — especially the DXers.

\$2.50

64 pages, size 8 3/4" x 12"

JUST LOOK AT THIS TABLE OF CONTENTS

INTERNATIONAL DX LOG — prefixes of all countries that qualify for DXCC. Ample space provided to make a permanent record of all DX stations worked, showing date, call letters, frequency and whether a QSL card has been sent or received. Can be used either for a DX contest or the annual ARRL field day.

WORLD MAP SHOWING RADIO AMATEUR PREFIXES — an outstanding map, 15" x 10".

GREAT CIRCLE MAPS — centered on New York City, San Francisco, Seattle, Wash., Washington, D.C. and the center of the United States.

PREFIX MAP OF SOUTH AMERICA — showing the number or letter designating all sections and countries.

ARRL SECTION MAP — of the U.S. Check off the sections you have worked during ARRL contests.

GREAT CIRCLE BEARING TABLES — each printed on a separate page for easy removal of the one nearest your location. 326 bearings are shown to the nearest degree and the distance in statute miles on each table for Anchorage, Alaska; Atlanta, Georgia; Boston, Mass.; Buffalo, N.Y.; Chicago, Ill.; Columbus, Ohio; Dallas, Texas; Denver, Colo.; Detroit, Mich.; Honolulu, Hawaii; Houston, Texas; Jacksonville, Florida; Kansas City, Mo.; Knoxville, Tenn.; Los Angeles, Calif.; Louisville, Ky.; Miami, Fla.; Minneapolis, Minn.; New Orleans, La.; New York City, N.Y.; Norfolk, Va.; San Francisco, Calif.; Seattle, Wash.; Washington, D.C.; and the geographical center of the United States.

GREAT CIRCLE BEARINGS IN THE UNITED STATES — between 39 large cities in the U.S.A. — a valuable aid for VHF work as well as handling traffic through QRM.

GREAT CIRCLE BEARINGS TO WORLD WIDE METROPOLITAN AREAS — exact bearings to the nearest degree from 39 cities in the U.S.A. to 39 metropolitan areas throughout the world.

TIME CONVERSION TABLE — determine the time in any time zone in the world. Also know whether it is today or tomorrow at the place heard or worked.

TIME THROUGHOUT THE WORLD — time zones of most countries. Explains the International Time Zone System.

AIR LINE DISTANCES IN THE UNITED STATES — arranged in alphabetical order between 39 cities of the United States.

POSTAL INFORMATION — rates for QSL cards, first class and airmail letters to foreign countries. Also the number of international reply coupons for the proper postage for a return airmail letter is shown for most countries.

ARRL COUNTRIES LIST — official list of ARRL DX contest and DXCC. Courtesy ARRL.

COMPASS ROSE — for that rotary beam indicator, graduated for 360 degrees. With white background and no print on the reverse side of the sheet.

PLUS THESE INTERESTING FEATURES — INTERNATIONAL "Q" SIGNALS; WORLD WIDE QSL BUREAUS; "Z" CODE FOR POINT-TO-POINT SERVICE; ARRL PHONETIC ALPHABET; TELEGRAPHERS ABBREVIATIONS; DX OPERATING CODE; TELEGRAPH CODES.

NATIONAL BUREAU OF STANDARDS PROPAGATION FORECAST SERVICES AND TIME SIGNALS; CENSUS OF RADIO AMATEURS THROUGHOUT THE WORLD; RADIO AMATEUR PREFIXES ALPHABETICALLY BY PREFIX AND BY COUNTRY.

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RADIO AMATEURS OF THE U. S. A.

VOLUME 49
NUMBER 3

ALL K AND W CALLS

FALL 1971

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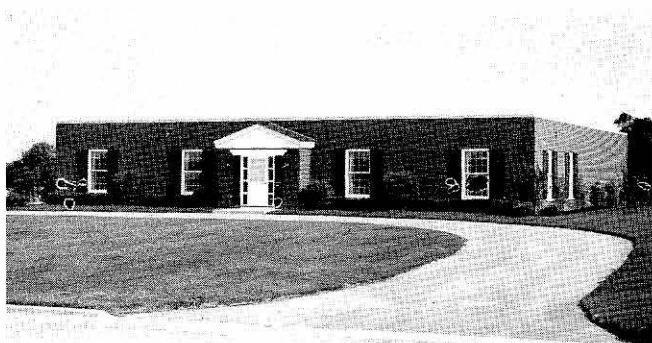
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The Home of RADIO AMATEUR CALLBOOK a modern air-conditioned building planned for maximum efficiency in the production of Callbooks and Callbook products.

A year around staff, through the use of electronic data processing equipment, evaluates and compiles the directory information received daily from all over the world. Extensive library and historical records are maintained to provide the most complete and accurate Callbook possible to produce.

The Callbook had its beginning back in 1920 when there were just a few radio amateurs. Today, Callbooks and Callbook products are in use in every country of the world.

CENSUS OF AMATEUR RADIO LICENSES OF THE WORLD*

Prefix	Country	Number of radio amateur licenses	Prefix	Country	Number of radio amateur licenses	Prefix	Country	Number of radio amateur licenses
A2	Botswana.....	18	K,W	United States of America (48 states)...	283,015	VR1	British Phoenix, Ellice, Gilbert & Ocean Is.	2
AC3	Sikkim.....	1	KA	U. S. Personnel in Japan.....	88	VR2	Fiji Is.....	18
AP	Pakistan.....	35	KB6	Baker, Canton, Enderbury, Howland & Phoenix Is.....	11	VR4	Solomon Is.....	10
BV	Taiwan (Formosa).....	1	KC4	Navassa Is.....	1	VR5	Tonga Is.....	7
CE	Chile.....	2,504	KC4AA,US	Antarctica.....	11	VS5	Brunei.....	1
CE9	South Shetland Is, Graham Land.....	26	KC6	Caroline Is.....	34	VS6	Hong Kong.....	42
CE0A	Easter Is.....	11	KG4	Guantanamo Bay, Cuba.....	21	VU	India.....	553
CE0Z	Juan Fernandez Is.....	11	KG6	Mariana Is.....	126	W,K	United States of America (See K,W).....	
CM,C0	Cuba.....	411	KH6	Hawaii.....	1,407	XE,XF	Mexico.....	2,969
CN	Morocco.....	137	KJ6	Johnston Is.....	7	XE1	- 1,452	
CP	Bolivia.....	474	KL7	Alaska.....	1,182	XE2	- 1,381	
CR3	Portuguese Guinea.....	3	KM6	Midway Is.....	11	XE3	- 136	
CR4	Cape Verde Is.....	30	KP4	Puerto Rico.....	893	XT2	Upper Volta.....	2
CR5	Sao Tome & Principe Is.....	1	KP6	Jarvis & Palmyra Is.....	8	XW8	Laos.....	31
CR6	Angola.....	262	KR6,8	Ryukyu Is. (Okinawa).....	359	XZ	Burma.....	30
CR7	Mozambique.....	214	KS4	Swan Is.....	5	YA	Afghanistan.....	16
CR8	Timor Is.....	2	KS6	American Samoa.....	54	YB	Indonesia.....	69
CR9	Macao.....	1	KV4	Virgin Is.....	101	YK	Syria.....	9
CT1	Portugal.....	418	KW6	Wake Is.....	24	YN	Nicaragua.....	378
CT2	Azores Is.....	17	KX6	Marshall Is.....	62	Y0	Romania.....	1,223
CT3	Madeira Is.....	12	KZ5	Canal Zone.....	235	YS	El Salvador.....	205
CX	Uruguay.....	3,139	LA,LF,LJ	Norway.....	2,964	YU	Yugoslavia.....	2,029
C21	Republic of Nauru.....	2	LU	Argentina.....	18,085	YV	Venezuela.....	3,373
C31	Andorra.....	27	LX	Luxembourg.....	103	ZB2	Gibraltar.....	11
DA,B,C,F,J,K,L	West German Federal Republic.....	16,993	LZ	Bulgaria.....	586	ZC4	Cyprus.....	23
DM	East German Democratic Republic.....	2,745	M1	San Marino.....	4	ZD3	Gambia.....	7
DU	Philippines.....	138	MP4	Bahrein & Das Is, Muscat & Oman, Qatar, Trucial States.....	324	ZD5	Swaziland.....	10
EA	Spain.....	1,209	OA	Peru.....	1,269	ZD7	Saint Helena.....	2
EA6	Balearic Is.....	29	OD5	Lebanon.....	89	ZD8	Ascension Is.....	15
EA8	Canary Is.....	158	OE	Austria.....	1,459	ZD9	Tristan da Cunha & Gough Is.....	3
EA9	Spanish Sahara, Ifni, Ceuta y Melilla.....	18	OH	Finland.....	2,346	ZE	Rhodesia.....	180
EI	Ireland.....	343	OH0	Aland Is.....	19	ZF1	Cayman Is.....	23
EL,5L	Liberia.....	131	OJ0,OH0M	Market Reef.....	1	ZK1	Cook Is.....	14
EP	Iran.....	29	OK,OL	Czechoslovakia.....	2,381	ZK2	Niue Is.....	2
ET3	Ethiopia.....	15	ON	Belgium.....	1,368	ZL	New Zealand.....	4,507
F	France.....	5,679	OX	Greenland.....	75	ZP	Paraguay.....	291
FB8	Amsterdam, St. Paul, Crozet, Kerguelen, Tromelin Is.....	4	OY	Faeroes Is.....	74	ZS	South Africa.....	2,804
FG7	Guadeloupe Is.....	36	OZ	Denmark.....	3,020	ZS3	South-West Africa.....	62
FG8	Comoro.....	5	PA,PE,PI	Netherlands.....	2,285	3A	Monaco.....	21
FK8	New Caledonia.....	23	PJ	Netherlands Antilles - PJ2 - Curacao... PJ3 - Aruba.....	35	3B7	St. Brandon Is.....	1
FL8	French Somaliland.....	17		PJ4 - Bonaire.....	27	3B8	Mauritius Is.....	34
FM7	Martinique.....	28		PJ6 - Saba Is.....	4	3B9	Rodrigues Is.....	1
F08	French Polynesia.....	47		PJ7 - Sint Maarten.....	11	3V8	Tunisia.....	2
FP8	St. Pierre & Miquelon Is.....	5	PY	Brazil.....	12,073	4S7	Ceylon.....	56
FR7	Reunion Is.....	30	PY0	Fernando de Noronha Is.....	3	4U	United Nations, Geneva.....	1
FS7	Saint Martin.....	1	PZ	Surinam.....	51	4W1	Yemen.....	9
FU8, YJ	New Hebrides.....	15	SK,SL,SM	Sweden.....	4,291	4X4,4Z4	Israel.....	664
FW8	Wallis & Futuna Is.....	2	SP	Poland.....	3,406	5A	Libya.....	34
FY7	French Guiana.....	22	ST	Sudan.....	1	5H1	Zanzibar.....	1
G	England.....	18,596	SU	Egypt.....	4	5H3	Tanzania.....	15
GC	Channel Is.....	98	SV	Greece, Crete.....	202	5N2	Nigeria.....	10
GD	Isle of Man.....	50	TF	Iceland.....	43	5R8	Madagascar.....	13
GI	Northern Ireland.....	344	TG	Guatemala.....	201	5T5	Mauritania.....	3
GM	Scotland.....	1,310	TI	Costa Rica.....	549	5U7	Niger.....	10
GW	Wales.....	819	TI9	Cocos Is.....	2	5V	Togo.....	12
HA,HG	Hungary.....	629	TJ	Cameroon.....	18	5W1	Western Samoa.....	7
HB	Switzerland.....	979	TL8	Central African Republic.....	4	5X5	Uganda.....	7
HB0	Liechtenstein.....	1	TN8	Republic of Congo (Brazzaville).....	8	5Z4	Kenya.....	53
HC	Ecuador.....	557	TR8	Gabon.....	13	60	Somali Republic.....	4
HC8	Galapagos Is.....	8	TT8	Chad.....	10	6W8	Senegal.....	45
HH	Haiti.....	18	TU2	Ivory Coast.....	38	6Y5	Jamaica.....	54
HI	Dominican Republic.....	555	TY	Dahomey.....	3	7G1	Republic of Guinea.....	1
HK	Colombia.....	1,805	VE	Canada.....	12,317	7P8,ZS8	Lesotho.....	14
HK0	Bajo Nuevo Is.....	1	VE1	- 1,187	7Q7	Malawi.....	14	
HK0	Malpelo Is.....	1	VE2	- 2,212	7X	Algeria.....	36	
HK0	San Andres & Providencia Is.....	16	VE3	- 4,772	7Z,HZ	Saudi Arabia.....	1	
HM, HL	Korea.....	123	VE4	- 525	8J	Antarctica.....	1	
HP	Panama.....	191	VE5	- 543	8P6	Barbados Is.....	100	
HR	Honduras.....	176	VE6	- 1,102	8QA,VS9	Maldives Is.....	12	
HS	Thailand.....	65	VE7	- 1,879	8R	Guyana.....	22	
HV	Vatican City.....	2	VE8	- 68	9G1	Ghana.....	38	
HZ	Saudi Arabia.....	3	VE0	- 29	9H1	Malta.....	54	
I	Italy.....	4,768	VK	Australia.....	6,402	9I,9J	Zambia.....	63
IC	Capri Is.....	1	VO1	Newfoundland.....	242	9K2	Kuwait.....	59
IH	Pantelleria Is.....	2	VO2	Labrador.....	36	9L	Sierra Leone.....	2
IS	Sardinia.....	77	VP1	British Honduras.....	45	9M2	Federation of Malaysia.....	89
IT	Sicily.....	245	VP2	Leeward-Windward Is.....	169	9M6	Sabah.....	3
JA,JH,JR	Japan.....	13,328	VP5	Turks & Caicos Is.....	6	9M8	Sarawak.....	7
JD1	Minami-Tori-Shima Is.....	10	VP7	Bahama Is.....	55	9N1	Nepal.....	1
JT1	Mongolia.....	4	VP8	Falkland, South Georgia, South Orkney, South Sandwich, South Shetland Is.....	40	9Q5	Republic of the Congo (Kinshasa).....	233
JW	Svalbard Is.....	19	VP9	Bermuda Is.....	59	9U5	Burundi.....	9
JX	Jan Mayen Is.....	22	VQ9	Seychelles Is.....	10	9V1	Republic of Singapore.....	58
						9X5	Rwanda.....	48
						9Y4	Trinidad & Tobago Is.....	88

* From the Fall 1971 Radio Amateur Callbook Magazines.
Absence of prefix and country indicates either that no licenses have
been issued or have not been obtainable from official sources.

TELEGRAPH CODES

CONTINENTAL CODE	MORSE CODE
Used in ham radio	Used on land lines in United States and Canada
<p>A . —</p> <p>B — . . .</p> <p>C —</p> <p>D — . . .</p> <p>E .</p> <p>F</p> <p>G — . . .</p> <p>H</p> <p>I . .</p> <p>J . — . —</p> <p>K — . — .</p> <p>L — . . .</p> <p>M — — .</p> <p>N . — .</p> <p>O — — —</p> <p>P — . — . .</p> <p>Q — — . — .</p> <p>R — . — .</p> <p>S . . .</p> <p>T — — —</p> <p>U . . —</p> <p>V . . . —</p> <p>W . — . —</p> <p>X — . — .</p> <p>Y — — . —</p> <p>Z — — — .</p>	<p>A . —</p> <p>B — . . .</p> <p>C —</p> <p>D — . . .</p> <p>E .</p> <p>F</p> <p>G — . . .</p> <p>H</p> <p>I . .</p> <p>J . — . —</p> <p>K — . — .</p> <p>L — . . .</p> <p>M — — .</p> <p>N . — .</p> <p>O — — —</p> <p>P — . — . .</p> <p>Q — — . — .</p> <p>R — . — .</p> <p>S . . .</p> <p>T — — —</p> <p>U . . —</p> <p>V . . . —</p> <p>W . — . —</p> <p>X — . — .</p> <p>Y — — . —</p> <p>Z — — — .</p> <p>&</p>
There are no space letters in the Continental Code	C, O, R, Y, Z and & are composed of dots and spaces T is a short dash L is a longer dash Zero (0) is usually abbreviated to T
<p>Figures</p> <p>1 . — — — —</p> <p>2 . . . — — —</p> <p>3 — —</p> <p>4</p> <p>5</p> <p>6 —</p> <p>7 —</p> <p>8 —</p> <p>9 —</p> <p>0 — — — — —</p>	<p>Figures</p> <p>1 . — — — .</p> <p>2</p> <p>3</p> <p>4</p> <p>5 —</p> <p>6</p> <p>7 —</p> <p>8 —</p> <p>9</p> <p>0 — — — — —</p>
<p>Punctuation</p> <p>(.)</p> <p>(,)</p> <p>(?)</p> <p>(:)</p> <p>(;)</p> <p>(-)</p> <p>(!) None at present</p> <p>(')</p> <p>(/)</p> <p>()</p> <p>(")</p>	<p>Punctuation</p> <p>(.)</p> <p>(,)</p> <p>(?)</p> <p>(:)</p> <p>(;)</p> <p>(-)</p> <p>(!)</p> <p>(')</p> <p>(/)</p> <p>()</p> <p>(")</p>

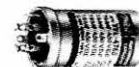
EMERGENCY SIGNAL

QRRR (The land SOS) To be used only by a station in the affected area when calling with an emergency message.

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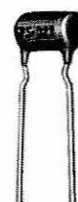
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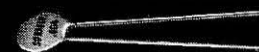
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AC3.....	Sikkim
AC4.....	Tibet
AC5.....	Bhutan
AP.....	Pakistan
AX.....	Australia

BV..... Taiwan
BY..... China

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CE.....Chile
CE9AN-AZ.....South Shetland Is.
CE0A.....Easter Is.
CE0X.....San Felix Is.
CE0Z.....Juan Fernandez Is.

```

CM, CO	Cuba
CN	Morocco
CP	Bolivia
CR3	Portuguese Guinea
CR4	Cape Verde Is.
CR5	Sao Tome & Principe Is.
CR6	Angola
CR7	Mozambique
CR8	Goa
CR8	Timor Is. (Portuguese)
CR9	Macao
CT1	Portugal
CT2	Azores Is.
CT3	Madeira Is.
CX	Uruguay
C21	Republic of Nauru
C31	Andorra

DA, B, C, F, J, K, L.. West German Federal Rep.
DM..... East German Democratic Rep.
DU..... Philippines

EA.....	Spain
EA6.....	Balearic Is.
EA8.....	Canary Is.
EA9.....	Spanish Sahara, Ifni, Ceuta y Melilla
EI.....	Ireland
EL, 5L.....	Liberia
EP.....	Iran
ET3.....	Ethiopia

F	.....	France
FB8	.....	Austral and Antarctic French Lands, Amsterdam, St. Paul, Crozet, Kerguelen Is.
FC	.....	Corsica
FG7	.....	Guadeloupe Is.
FH8	.....	Comoro Is.
FK8	.....	New Caledonia
FL8	.....	French Somaliland (Afars and Issas)
FM7	.....	Martinique
FO8	.....	French Polynesia, Clipperton Is.
FP8	.....	St. Pierre & Miquelon Is.
FR7	.....	Glorioso, Juan de Nova, Reunion Tromelin Is.
FS7	.....	Saint Martin
FU8	.....	New Hebrides
FW8	.....	Wallis & Futuna Is.
FY7	.....	French Guiana

G..... England
GC..... Channel Is.
GD..... Isle of Man
GI..... Northern Ireland
GM..... Scotland
GW..... Wales

HA, HG	Hungary
HB	Switzerland
HBØ	Liechtenstein
HC	Ecuador
HC8	Galapagos Is.
HH	Haiti
HI	Dominican Republic
HK	Colombia
HKØ	Bajo Nuevo, Malpelo, San Andres & Providencia Is.
HM, HL9	Korea
HP	Panama
HR	Honduras
HS	Thailand
HT	Nicaragua
HV	Vatican City
HZ, 7Z	Saudi Arabia

I, IR0	Italy
IC	Capri Is.
IH	Pantelleria Is.
IS	Sardinia
IT	Sicily

JA, JH, JR	Japan
JD	Ogasawara, Minami-Tori-Shima Is.
JT1	Mongolia
JW	Svalbard Is.
JX	Jan Mayen Is.
JY	Jordan

K.....	United States of America
KA.....	U.S. Personnel in Japan
KB.....	Baker, Canton, Enderbury, Howland & Phoenix Is.
KC4.....	Navassa Is.
KC4AA, KC4US.....	Antarctica
KC6.....	Caroline Is.
KG4.....	Guantanamo Bay, Cuba
KG6.....	Guam
KG6R, S, T.....	Mariana Is.
KG6I.....	Marcus, Volcano & Bonin Is.

KH6	Hawaii & Kure Is.
KJ6	Johnston Is.
KL7	Alaska
KM6	Midway Is.
KP4	Puerto Rico
KP6	Jarvis & Palmyra Is.
KR6, KR8	Ryukyu Is. (Okinawa)
KS4	Swan Is.
KS4B	Serrana Bank & Roncador Cay
KS6	American Samoa
KV4	Virgin Is.
KW6	Wake Is.
KX6	Marshall Is.
KZ5	Canal Zone

LA, LF, LJ.....	Norway
LU.....	Argentina
LX.....	Luxembourg
LZ.....	Bulgaria

M1..... San Marino
MP4..... Bahrain and Das Is.,
Muscat & Oman, Qatar, Trucial States

0A.....	Peru
0D5.....	Lebanon
0E.....	Austria
0H.....	Finland
OH0.....	Aland Is.
OJ0, OH0M.....	Market Reef
OK, OL.....	Czechoslovakia
ON.....	Belgium
OX.....	Greenland
OY.....	Faeroes Is.
OZ.....	Denmark

PA, PE, PI	Netherlands
PJ	Netherlands Antilles
PJ2	Curacao
PJ3, 9	Aruba
PJ4, 9	Bonaire
PJ5	St. Eustatius
PJ6	Saba Is.
PJ7	Sint Maarten
PY	Brazil
PY0	Fernando de Noronha Is.
PY0	St. Peter & St. Paul's Rocks
PY0	Trindade & Martin Vaz Is.
PZ	Surinam

SK, SL, SM..... Sweden
SP..... Poland
ST..... Sudan
SU..... Egypt (United Arab Republic)
SV, SZ0..... Crete, Greece
SV5..... Dodecanese Is.

TA, TC	Turkey
TF	Iceland
TG	Guatemala
TI	Costa Rica
TI9	Cocos Is.
TJ	Cameroon
TL8	Central African Republic
TN8	Republic of Congo (Brazzaville)
TR8	Gabon
TT8	Chad
TU2	Ivory Coast
TY	Dahomey
TZ	Mali Republic

UA1,3,4,	European Russian
	Soviet Federated Socialist Republic
UA9,0,	Asiatic Russian S.F.S.R.
UB5,	Ukrainian S.S.R.
UC2,	White Russian S.S.R.
UD6,	Azerbaijani S.S.R.
UF6,	Georgian S.S.R.
UG6,	Armenian S.S.R.
UH8,	Turkmen S.S.R.
UI8,	Uzbek S.S.R.
UJ8,	Tadzhik S.S.R.
UL7,	Kazakh S.S.R.
UM8,	Kirgiz S.S.R.
UN1,	Karelo-Finnish S.S.R.
UO5,	Moldavian S.S.R.
UP,	Lithuanian S.S.R.
UQ,	Latvian S.S.R.
UR,	Estonian S.S.R.

VE	.....	Canada
VK	.....	Australia
VK2	.....	Lord Howe Is.
VK4	.....	Willis Is.
VK7	.....	Tasmania
VK9	.....	New Guinea, Papua, Christmas, Cocos-Keeling, Norfolk Is.
VK0	.....	Heard & Macquarie Is., Antarctica
V01	.....	Newfoundland
V02	.....	Labrador
VP1	.....	British Honduras
VP2	.....	Leeward & Windward Is.
VP5	.....	Turks & Caicos Is.
VP7	.....	Bahama Is.
VP8	.....	Falkland, S. Georgia, S. Orkney, S. Sandwich, S. Shetland Is., Graham Land
VP9	.....	Bermuda Is.
VQ1	.....	Zanzibar
VQ9	.....	Chagos & Seychelles Is.
VR1	.....	Br. Phoenix, Ellice, Gilbert & Ocean Is.
VR2	.....	Fiji Is.
VR3	.....	Fanning & Christmas Is.

VR4.....	Solomon Is.
VR5.....	Tonga Is.
VR6.....	Pitcairn Is.
VS5.....	Brunei
VS6.....	Hong Kong
VS9A, P, S.....	South Yemen
VS9K.....	Kamran Is.
VU2.....	India
VU2.....	Laccadive Is.
VU2.....	Andaman & Nicobar Is.

W.....United States of America

XE,XF.....Mexico
XE4.....Revillagigedo Is.
XT2.....Upper Volta
XU.....Cambodia
XW8.....Laos
XZ2.....Burma

YA.....	Afghanistan
YB, YC, YD.....	Indonesia
YI.....	Iraq
YJ.....	New Hebrides
YK.....	Syria
YN.....	Nicaragua
YO.....	Romania
YS.....	El Salvador
YU, YT.....	Yugoslavia
YV.....	Venezuela
YV0.....	Aves Is.

ZA	Albania
ZB2	Gibraltar
ZC4	Cyprus
ZD3	Gambia
ZD5, ZS7	Swaziland
ZD7	Saint Helena
ZD8	Ascension Is.
ZD9	Tristan da Cunha & Gough Is.
ZE	Rhodesia
ZF1, VP5	Cayman Is.
ZK1	Cook & Maniniki Is.
ZK2	Niue Is.
ZL, ZM	New Zealand & Auckland, Campbell, Chatham, Kermadec Is.
ZM7	Tokelau Is.
ZP	Paraguay
ZS1, 2, 4, 5, 6	South Africa
ZS2	Prince Edward & Marion Is.
ZS3	Southwest Africa (Namibia)

3A.....	Monaco
3B6.....	Agalega Is.
3B7.....	St. Brandon Is.
3B8.....	Mauritius Is.
3B9.....	Rodriguez Is.
3C.....	Equatorial Guinea
3V8.....	Tunisia
3W8.....	Vietnam
3Y.....	Bouvet Is.
3Z.....	Poland

4S7.....	Ceylon
4U.....	United Nations, Geneva, Turin
4W1.....	Yemen
4X4, 4Z4.....	Israel

5A	Libya
5B4	Cyprus
5H1	Zanzibar
5H3	Tanganyika (Tanzania)
5H2	Nigeria
5R8	Madagascar (Malagasy Republic)
5T5	Mauritania
5U7	Niger
5V	Togo
5W1	Western Samoa
5X5	Uganda
5Z4	Kenya

601,2,6.....	Somali Republic
6W8.....	Senegal
6Y5.....	Jamaica

7G1..... Republic of Guinea
70..... South Yemen
7P8..... Lesotho
7Q7..... Malawi
7X..... Algeria
7Z..... Saudi Arabia

8P6..... Barbados Is.
8QA..... Maldive Is.
8R..... Guyana
8Z4..... Saudi Arabia/Iraq Neutral Zone

9G1	.....	Ghana
9H1	.....	Malta
9L	.....	Zambia
9J	.....	Kuwait
9K2	.....	Kuwait/Saudi Arabia Neutral Zone
9K3, 8Z5	.....	Sierra Leone
9L1	.....	Federation of Malaysia
9M2	.....	Sabah
9M6	.....	Sarawak
9M8	.....	Nepal
9N1	.....	Republic of the Congo (Kinshasa)
9Q5	Burundi
9U5	Republic of Singapore
9V1	Rwanda
9X5	Trinidad & Tobago Is.
9Y4	

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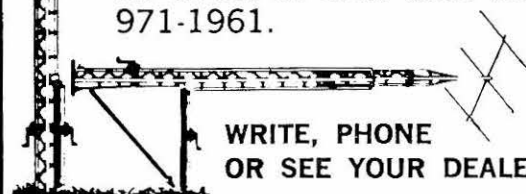
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AC3.....	Sikkim	KJ6.....	Johnston Island	VQ9.....	Chagos Islands
AC4.....	Tibet	KL7.....	Alaska	VQ9.....	Desroches
AD.....	Bhutan	KM6.....	Midway Islands	VQ9.....	Farquhar
AP.....	East Pakistan	KP4.....	Puerto Rico	VQ9.....	Seychelles
AV.....	West Pakistan	KP6.....	Palmyra Group, Jarvis Is.	VRI.....	British Phoenix Islands
BY.....	Formosa	KR6, 8.....	Ryukyu Islands	VR2.....	Gilbert & Ellice Is. & Ocean Island
C9.....	China	K54B, HKP.....	Serrana Bank & Roca Cay	VR3.....	Fiji Islands
CE.....	Manchuria	K54.....	Swan Islands	VR4.....	Fanning & Christmas Is.
CE9AA-AM, F8BY, KC4, LA, LU-Z, OR4, UA1, VK8, VP8, ZL5, BJ.....	Chile	K56.....	American Samoa	VR5.....	Solomon Islands
CE9AN-AZ (See VP8)	Antarctica	KV4.....	Virgin Islands	VR6.....	Tonga Islands
CE9A.....	Easter Island	KW6.....	Wake Island	VR6.....	Pitcairn Island
CE9X.....	San Felix	KX6.....	Marshall Islands	*VS1, 9M4, 9V1.....	Singapore
CE9Z.....	Juan Fernandez arch.	KZ5.....	Canal Zone	VS1, 9M2 (See 9M2, 4)	
CM, CO.....	Cuba	LA, LG.....	Norway	VS2 (See 9M2)	
*CN2.....	Morocco	LA/P (See JK, JW)		*VS4.....	Sarawak
CN2, 8, 9.....	Bolivia	LA (See CE9AA-AM)		VS4, ZC5 (See 9M6, 8)	
CP.....	Portuguese Guinea	LU.....	Argentina	VS5.....	Brunei
CR3, 5.....	Cape Verde Islands	LU-Z (See CE9AA-AM, PB, VP8)		VS6.....	Hong Kong
CR4.....	Principe, Sao Thome	LX.....	Luxembourg	VS9A, P, S.....	Aden & Socatra
CR5.....	Angola	LZ.....	Bulgaria	VS9K.....	Kamran Is.
CR6.....	Mozambique	M1 (See 9A1)		*VS9H.....	Kuria Muria Is.
CR7.....	Damao, Diu	MP4B.....	Bahrain	VS9M (See BQ)	
*CR8.....	Goa	MP4C.....	Qatar	VS90 (See MP4M)	
CR8, CR1B.....	Portuguese Timor	MP4M, VS90.....	Sultanate of Muscat & Oman	VU.....	Andaman & Nicobar Is.
CR9.....	Macao	MP4T.....	Trucial Oman	VU.....	India
CT2.....	Azores	OA.....	Peru	VU.....	Laccadive Islands
CT3.....	Madeira Islands	OB.....	Lebanon	W (See K)	
CX.....	Uruguay	OK, OF.....	Austria	XE, XF, 4A.....	Mexico
DJ, DK, DL, DM.....	Germany	OH.....	Finland	XP (See OK)	Revilla Gigedo
DU.....	Philippine Islands	OK.....	Czechoslovakia	*XT.....	Voltaic Rep.
EA.....	Spain	ON.....	Belgium	XU.....	Cambodia
EA6.....	Balearic Islands	OQ5, 8 (See 9Q5)		XV5 (See 3W8)	
EA8.....	Canary Islands	OR4 (See CE9AA-AM)		XW8.....	Laos
EA9.....	Illi	OX, KG1, XP.....	Green and	XZ2.....	Burma
EA9.....	Rio de Oro	OY.....	Faroe Islands	YA.....	Afghanistan
EA9.....	Spanish Morocco	OZ.....	Denmark	YI.....	Iraq
EA9.....	Spanish Guinea	PA, PE, PI.....	Netherlands	YJ, (FUB)	New Hebrides
EL.....	Republic of Liberia	PJ.....	Netherlands Antilles	YK.....	Syria
EP.....	Iran	PJ-M, S.....	Sint Maarten	YN, YNB.....	Nicaragua
*ET2.....	Eritrea	PK (See 8F)		YS.....	Romania
ET3.....	Ethiopia	*PK1, 2, 3.....	Java	YU.....	Yugoslavia
F.....	France	*PK4.....	Sumatra	YV.....	Venezuela
FB.....	Amsterdam & St. Paul Is.	*PK5.....	Netherlands Borneo	YVB.....	Aves Island
FB8Y (See CE9AA-AM)		*PK6.....	Celebes & Molucca Islands	ZA.....	Albania
FB8W.....	Crozet Is.	PX.....	Andorra	ZB1 (See 9H1)	
FB8X (See FB8)	Kerguelen Islands	PY.....	Brazil	ZB2.....	Gibraltar
FB8 (See 5R8)		PYB.....	Fernando de Noronha	ZC3 (See VK9)	
FB8 (See FR7)		PYB.....	St. Peter & St. Paul's Rocks	ZC4 (See 5B4)	
*FC.....	Corsica	PYB.....	Trinidad & Martin Vaz Is.	ZC5 (See 9M6, 8)	
FD (See 5V)		PZ1.....	Sweden	*ZC5.....	British North Borneo
FE8 (See TJ)		SK, SL, SM.....	Poland	ZC6.....	Palestine
FF4 (See TU)		ST2.....	Sudan	ZD1 (See 9L1)	
FF7 (See 5T)		SU.....	Egypt	ZD2 (See 5N2)	
FF8 (See TZ)		SV.....	Crete	ZD3.....	The Gambia
FF8 (See 5U7)		SV.....	Dodecanese	ZD4 (See 9G1)	
FF8 (See 5X7)		SV.....	Greece	*ZD4.....	Gold Coast, Togoland
FF8 (See 6W8)		SV.....	Turkey	ZD5, Z57.....	Swaziland
*FFB.....	French West Africa	TA.....	Iceland	ZD6 (See 7Q7)	
FGT.....	Guadeloupe	TG.....	Costa Rica	ZD7.....	St. Helena
FHB, FBB.....	Comoro Islands	TI.....	Cocos Islands	ZD8.....	Ascension Island
*FIB.....	French Indo-China	TJ.....	Cameroun	ZD9.....	Tristan da Cunha & Gough Island
FIB.....	New Caledonia	TJ, FFB.....	Central African Rep.	ZE.....	Rhodesia
FLB.....	French Somaliland	*TL.....	Comoro Rep.	ZF1, VP5.....	Cayman Islands
FM7.....	Martinique	*TM.....	Gabon Rep.	ZK1.....	Cook Islands
*FN.....	French India	*TT.....	Chad Rep.	ZK1.....	Manihiki Islands
FNB.....	Clipperton Island	*TU.....	Ivory Coast	ZK2.....	Niue
FNB.....	French Oceania	*TZ.....	Dahomey Rep.	ZL.....	Auckland Is. & Campbell Is.
FNB.....	Maria Theresa	UA, UV, UW1-b, UN1.....	European Russian S. F. S. R.	ZL.....	Kermadec Islands
FNB.....	St. Pierre & Miquelon Is.	UA1 (See CE9AA-AM)	Franz Josef Land	ZL.....	New Zealand
FQ8 (See TL)		UA2.....	Kaliningradsk	ZLS (See CE9AA-AM)	
FQ8 (See TT)		UA, UV, UW9, 8.....	Asiatic R.S.F.S.R.	ZM6 (See 5W1)	
FQ8 (See TN)		UB5, UT5, UY5.....	Ukraine	ZM7.....	Tokelau
FQ8 (See TR)		UC2.....	White Russian, S. S. R.	ZP.....	Paraguay
*FQ8.....	French Equatorial Africa	UD6.....	Azerbaijan	ZS1, 2, 4, 5, 6.....	South Africa
*FR7.....	Glorioso Islands	UF6.....	Georgia	ZS2.....	Prince Edward & Marion Is.
*FR7.....	Juan de Nova	UG6.....	Armenia	ZS3.....	Southwest Africa
FR7.....	Reunion	UH8.....	Turkmen	ZS7 (See 7P8)	
FR7.....	Tromelin	UI8.....	Uzbek	ZS9.....	Botswana
FUB (See YJ)	Saint Martin	UL7.....	Kazakh	1M.....	Minerva Reefs
FWB.....	Wallis & Futuna Islands	UM8.....	Kirghiz	1S.....	Sprally Is.
FY7.....	French Guiana & Inini	UN1.....	Karelo-Finnish Republic	3A.....	Monaco
G.....	England	UO5.....	Moldavia	3B, 3C (See VE)	
GC.....	Guernsey & Dependencies	UP2.....	Lithuania	3VB.....	Tunisia
GD.....	Jersey Island	UQ2.....	Latvia	3WB, XV5.....	Vietnam
GI.....	Isle of Man	UR2.....	Estonia	3X, (7G)	Rep. of Guinea
GL.....	Northern Ireland	VE, VO, 3B, 3C.....	Canada	3Y, LA, 6.....	Bouvet Island
GM.....	Scotland	VK.....	Australia (inc. Tasmanian)	4A (See XE)	
HA, HD.....	Wales	VK4.....	Lord Howe Island	457.....	Ceylon
HB.....	Hungary	VK9, ZC3.....	Christmas Island	4U.....	I. T. U. Yemen
HBD, HE.....	Switzerland	VK9.....	Cocos Islands	4X, 4Z.....	Israel
HCB.....	Liechtenstein	VK9.....	Naumi Island	5A.....	Libya
HE (See HBD)	Ecuador	VK9.....	Norfolk Island	5B4, ZC4.....	Cyprus
HH.....	Galapagos Islands	VK9.....	Papua Territory	5H3, VQ3.....	Tanganyika
HI.....	Haiti	VK9 (See CE9AA-AM)	Territory of New Guinea	5N2, ZD2.....	Nigeria
HK.....	Dominican Republic	VK9.....	Heard Island	5R8, FBB.....	Malagasy Rep.
HK8.....	Colombia	VK9.....	Macquarie Island	*5T.....	Mauritania
HK8.....	Bajo Nuevo	VO (See VE)		*5U7.....	Niger Rep.
HK8.....	Malpelo Is.	VP1.....	British Honduras	5V.....	Togo Rep.
HK8 (See K54B)	San Andres & Providencia	*VP2K.....	Anguilla	5W1, ZM6.....	Western Samoa
HL, HM.....	Korea	*VP2A.....	Antigua, Barbuda	5X5, VQ5.....	Uganda
HP.....	Panama	*VP2V.....	British Virgin Islands	5Z4, VQ4.....	Kenya
HR.....	Honduras	*VP2D.....	Dominica	601, 2, 6.....	Somali Rep.
HS.....	Thailand	*VP2O.....	Grenada & Dependencies	*6WB, FFB.....	Senegal Rep.
HV.....	Vatican	*VP2M.....	Montserrat	6Y5, VP5.....	Jamaica
HZ, 7Z.....	Saudi Arabia	*VP2K.....	St. Kitts, Nevis	*7G1 (See 3X)	
IL, IT.....	Italy	*VP2L.....	St. Lucia	7PB, ZS8.....	Lesotho
*IS.....	Italian Somaliland	*VP25.....	St. Vincent & Dependencies	7Q7, ZD6.....	Malawi
IS1.....	Sardinia	VP3 (See BR)		7X, A.....	Algeria
JA, JH, KA.....	Japan	VP4 (See 9Y4)		7Z (See 7H)	
JT.....	Mongolia	VP5 (See ZF1)		*8F, PK.....	Indonesia
JX, LA/P.....	Jan Mayen	VP5 (See 6Y5)		8J (See CE9AA-AM)	
JY, LA/P.....	Svalbard	VP6 (See 8P)		8P, VP6.....	Barbados
*JZB.....	Netherlands New Guinea	VP7 (See CE9AA-AM)		8Q, VS9M.....	Maldives Islands
K, W (See JAI)	United States of America	VP8.....	Falkland Islands	8R, VP3.....	Guyana
KA1 (See KG61)		VP8, LU-Z.....	So. Georgia Is.	8Z4.....	Saudi Arabia/Iraq Neutral Zone
KB6.....	Baker, Howland & American Phoenix Islands	VP8, LU-Z.....	So. Orkney Is.	8Z5 (See 9K3)	
KC4 (See CE9AA-AM)		VP8, LU-Z.....	So. Sandwich Is.	9A1, (M1).....	San Marino
KC6.....	Navassa Island	VP8, LU-Z, CE9AN-AZ.....	So. Shetland Is.	*9G1, ZD4.....	Ghana
KC6.....	Eastern Caroline Is.	VP9.....	Bermuda Islands	*9G1, ZB1.....	Malta
KC6.....	Western Caroline Is.	VQ1.....	Zanzibar	9J2, VQ2.....	Zambia
KJ1 (See OK)		VQ2 (See 9J2)		9K2.....	Kuwait
KG4.....	Guantanamo Bay	VQ3 (See 5H3)		9K3, BZ5.....	Kuwait/Saudi Arabia Neutral Zone
KG6, KA1.....	Bonin & Volcano Islands	VQ4 (See 5Z4)		9L1, ZD1.....	Sierra Leone
KG6, KA1.....	Marcus Island	VQ5 (See 5X5)		*9M2.....	Malaya
KG6R, S, T.....	Mariana Islands	*VQ6.....	British Somaliland	*9M2, 4.....	West Malaysia
KH6.....	Hawaiian Islands	VQ6.....	Agalega & St. Brandon	9M4 (See VS1)	
KH6.....	Kure Island	VQ8.....	Mauritius	*9M6, 8.....	East Malaysia
		VQ9.....	Rodriguez Island	9Q5, QQ5, 8.....	Rep. of the Congo
			Aldabra	*9S4.....	Sao
				*9U5.....	Burundi
				*9U5.....	Ruanda-Urundi
				9V1 (See VS1)	
				*9X5.....	Rwanda
				9Y4, VP4.....	Trinidad & Tobago
				*	Blenheim Reef
				*	Geyser Reef

FEDERAL COMMUNICATIONS COMMISSION EXAMINATION POINTS

Examinations for commercial and amateur radio operator licenses are conducted at the following F.C.C. field offices on the days designated by the Engineer in Charge of each office. Specific dates should be obtained from the Engineer in Charge.

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1	BOSTON, MASSACHUSETTS 02109 1600 Customhouse, India & State Streets
2	NEW YORK, NEW YORK 10014 748 Federal Building, 641 Washington Street
3	PHILADELPHIA, PENNSYLVANIA 19106 1005 U.S. Customhouse, 2nd & Chestnut Streets
4	BALTIMORE, MARYLAND 21201 819 Federal Building, 31 Hopkins Plaza
5	NORFOLK, VIRGINIA 23502 Military Circle, 870 N Military Hwy
6	ATLANTA, GEORGIA 30303 1602 Gas Light Tower, 235 Peachtree St, NE
6S	SAVANNAH, GEORGIA 31402 238 Post Office Building, York & Bull Streets
7	MIAMI, FLORIDA 33130 919 Federal Building, 51 S. W. First Avenue
7T	TAMPA, FLORIDA 33602 738 Federal Building, 500 Zack Street
8	NEW ORLEANS, LOUISIANA 70130 829 Federal Building South, 600 South Street
8M	MOBILE, ALABAMA 36602 439 U. S. Court House, 113 St. Joseph Street
9	HOUSTON, TEXAS 77002 5636 Federal Building, 515 Rusk Avenue
9B	BEAUMONT, TEXAS 77701 239 Federal Building, 300 Willow Street
10	DALLAS, TEXAS 75202 707 Thomas Building, 1314 Wood Street
11	LOS ANGELES, CALIFORNIA 90012 U. S. Courthouse, 312 N. Spring Street
11SD	SAN DIEGO, CALIFORNIA 92101 Fox Theatre Building, 1245 Seventh Avenue
11SP	SAN PEDRO, CALIFORNIA 90731 300 South Ferry Street
12	SAN FRANCISCO, CALIFORNIA 94111 323A Custom House, 555 Battery Street
13	PORTLAND, OREGON 97204 314 Multnomah Building, 319 S. W. Pine Street
14	SEATTLE, WASHINGTON 98104 8012 Federal Office Building, 909 First Avenue
15	DENVER, COLORADO 80202 504 New Customhouse, 19th bet. California & Stout St.
16	ST. PAUL, MINNESOTA 55101 691 Federal Building, 4th & Robert Streets
17	KANSAS CITY, MISSOURI 64106 1703 Federal Building, 601 East 12th Street
18	CHICAGO, ILLINOIS 60604 1872 U. S. Courthouse, 219 S. Dearborn Street
19	DETROIT, MICHIGAN 48226 1054 Federal Building, Washington & LaFayette St.
20	BUFFALO, NEW YORK 14203 328 Federal Office Building, 121 Ellicott St.
21	HONOLULU, HAWAII 96808 502 Federal Building, 335 South King Street
22	SAN JUAN, PUERTO RICO 00903 322 Federal Building
23	ANCHORAGE, ALASKA 99501 54 U S Post Office Building, 4th bet. F & G St.
24	WASHINGTON, D.C. 20554 Room 216, 1919 M Street, N.W.
	GETTYSBURG, PENNSYLVANIA 17325 P. O. Box 441

SPECIAL ARRL QN SIGNALS FOR NET USE

QNA*	Answer in prearranged order.
QNB*	Act as relay Between and
QNC	All net stations Copy. I have a message for all net stations.
QND*	Net is Directed (controlled by net control station).
QNE*	Entire net please stand by.
QNF	Net is Free (not controlled).
QNG	Take over as net control station.
QNH	Your net frequency is High.
QNI	Net stations report In.* I am reporting into the net.
QNJ	Can you copy me? Can you copy ?
QNK*	Transmit messages for to
QNL	Your net frequency is Low.
QNM*	You are QRMing the net. Please stand by.
QNN	Net control station is * What station has net control?
QNO	Station is leaving the net.
QNP	Unable to copy you (or).
QNQ*	Move frequency to . . . and wait for . . . to finish handling traffic. Then send him traffic for
QNR*	Answer . . . and Relay (or Receive) traffic.
QNS	Following Stations are in the net.* (Follow with list). Request list of stations in the net.
QNT	Leaving net Temporarily (for or . . . minutes).
QNU*	The net has traffic for YOU. Stand by.
QNV*	Establish contact with on this frequency. If successful, move to . . . and send him traffic for . . .
QNW	How do I route messages for ?
QNX	You are excused from the net.* Request to be excused from the net.
QNY*	Shift to another frequency (or to . . . kc.) to clear traffic with
QNZ	Zero beat your signal with mine.

*For use only by Net Control Station

Notes on the Use of QN Signals

- The QN signals listed above are special ARRL signals for use in amateur c.w. nets only. Other meanings that may be used in other services do not apply.
- Some QN signals are for use by net control stations only; these are marked with an asterisk (*). Others have slightly different meanings when used by the NCS and net stations; in this case, the meaning when used by the NCS is marked with an asterisk (*).
- Some QN signals have two meanings, the difference depending on how or by whom used. Examples: (a) QNC, when used as a preface to transmission of a message, carries its first meaning; when used by a station reporting into the net (e.g., W9NCS DE W9NET QNI QNC), it carries its second meaning. (b) QNI, when used by the NCS, is a request for stations to report in; when used by a net station, it means that this station is reporting in. (c) QNJ, when used alone, carries its first meaning; when followed by a call, it carries the second meaning.
- QN signals are never followed by a question mark, even though the meaning may be interrogatory.
- Do not use QN signals on phone nets. Say it with words.
- Use QN signals in nets only. They are not for use in casual amateur conversation.
- Make frequent use of standard international "Q" signals in traffic nets, for meanings not covered by QN signals. Examples: QRU, QRV, QSV, QTA, QTB, QTX, etc.

ARRL Communications Department

ARRL Adopted ICAO Phonetic Alphabet

(International Civil
Aviation Organization)

A	ALFA
B	BRAVO
C	CHARLIE
D	DELTA
E	ECHO
F	FOXTROT
G	GOLF
H	HOTEL
I	INDIA
J	JULIETT
K	KILO
L	LIMA
M	MIKE
N	NOVEMBER
O	OSCAR
P	PAPA
Q	QUEBEC
R	ROMEO
S	SIERRA
T	TANGO
U	UNIFORM
V	VICTOR
W	WHISKEY
X	X-RAY
Y	YANKEE
Z	ZULU

ON GOOD PHONE OPERATING

- Listen much . . . with care. Avoid distractions in your operating room. Tune the band well after each call.
- Time your calls; monitor your own frequency. Call only when a station is free.
- Make short calls, with breaks to listen. Speak clearly, at a steady, modest rate. Three short calls are better than one long one.
- Use push-to-talk technique . . . speak near the mike. Watch the modulation indicator. Keep local background noise at a minimum.
- Make notes. Avoid missing points for comment. Jot down topics to avoid repeats.
- Talk in connected thoughts and phrases. Notes will help avoid mixing up subjects. Push-to-talk technique will keep brother amateurs from calling you a monologist.
- Speak naturally. QSOs need not be cut and dried. Make them interesting. Avoid exhibitionism. Use proper operating form to promote efficiency in communication and add respect and prestige for your station.

Use of this standard list is recommended by ARRL. Haphazard selection of words often results in confusion. A degree of uniformity in use of phonetic words reflects favorably on your individual operating, and on the whole amateur service.

American Radio Relay League
225 Main Street
Newington, Conn. 06111

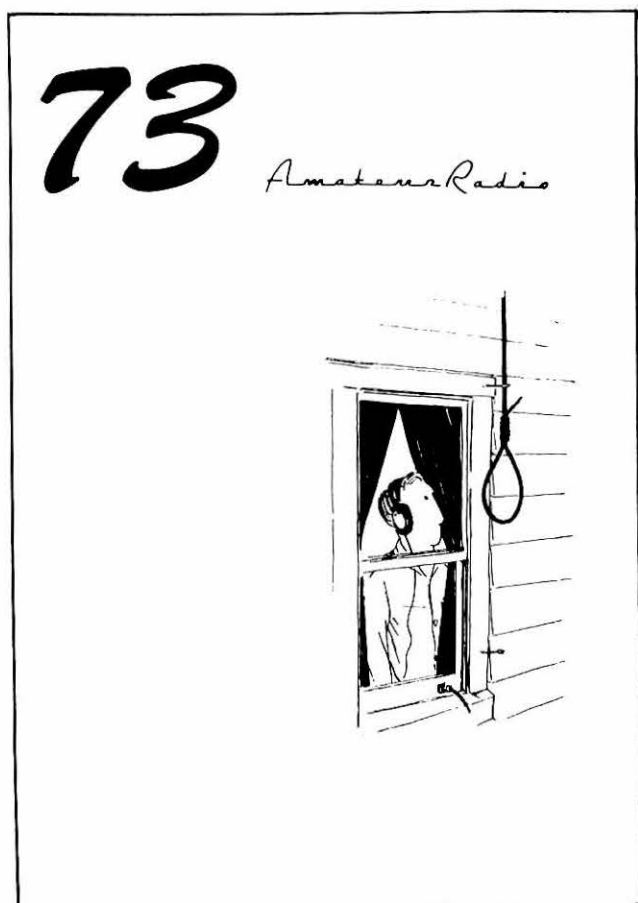
TELEGRAPHERS' ABBREVIATIONS IN CURRENT USE

— denotes short space, as in American Morse o, e; c, e; &, e.
 — denotes letters sent together, as in ar, sent

- A -	
aa	all after
ab	all before
abl	able
abt	about
ads,adr	address
adv	advise
af	Africa
aftrn	afternoon
agn	again
ahd	ahead
alng	along
am	amplitude modulation
ani	any
anr	another
ant	antenna
app	appreciate
ar	end of message
as,as m	wait, wait a minute
au	fractions follow
aw	auf wiedersehn (Ger), see you later
- B -	
b	be
b4	before
balun	balanced-to-unbalanced
bc,bcl	broadcast, broadcast listener
bcnu	be seeing you
bd	buenos dias (Sp), bad
bda	birthday
b6,bo,bth	both, as in "u5 bee", up both (Morse)
bfo	beat frequency oscillator
bjr	bon jour (Fr)
bk,bkg	back,break,black,book,breaking
bkr	breaker,circuit-breaker
bn	been,brown,between,buenas noches (Sp)
bq	answer to m (request)
brg,brng	bearing,heading
bsr	bon soir (Fr)
btr	better
buk	book
- C -	
c	yes
cd	card,could
cd,cud,cdnt	could,couldn't
cfm,cfmg	confirm,confirming
ck	check
ckt,cct	circuit
cl,clg	call,calling,closed
clbk	callbook
clix	clicks
clr	clear
cndx,condx,cdx	conditions
cnt,cnti,cnty	count, county
cnvn	convention
coz,cos,cuz,becuz	because
cpi	copy
cq	general call to all stations
cs	call sign,call letters
cua,cuagn	see you again
cul	see you later
cum,cm,cmg	come,coming
cupla	a couple of
cw	continuous wave>manual keying
- D -	
da	day
dbl	double
dcn	direction
dct	direct
de	from
df	direction finder
diff,diff	difference
dtr,dld	dealer,deliver,delivered
dn,d	down (in frequency)
dnt,dmi	do not, don't mention it
dpe	dope,information
dr	dear
ds	thanks,danke schon (Ger)
dsnt	does not
dsw	goodbye,do svidaniya (Russian)
dunno	don't know
dx	distance, or rare station
dxpdx	dx expedition
- E -	
em	old man
eh	?
el,els	antenna element(s)
em	them
eni,enibdi,eniwh	any,anybody,anyhow
ere	here
es,es	and (from Morse "&", sent . . .)
eta	estimated time of arrival
etd	estimated time of departure
eu	Europe
- F -	
fb,vfb	fine business,good (enthusiastic approval)
fd	field day,feed,food
fer	for
fiver	QSA-5
fld	field,filed
flr	floor
fm,frm	from,frequency modulation
fnd	friend, find, found
fnl	funny
foxes	teleprinter test tapes
freq,fq	frequency
fwd	forward
fyi	for your information
- G -	
ga	good afternoon,go ahead
gb	good bye
gd	good day, good
ges,guess	guess
gg	going
gl	good luck

- G - (Cont.)	
gld	glad
gn,gng	gone,green,going
gnd	ground
gotta	got to,have to,must
gp	ground plane,group (word)
grs	groups (as in msg code groups)
gud	good
gtgs	greetings
gv,gvg	give,giving
- H -	
hd,hrd	had,hard,heard
hdg	heading,antenna azimuth
hed	he would
hi	high, laughter, (sometimes !)
hlo	hello
hlv	hasta la vista (Sp),see you later
hpe,hpg	hope,hoping
hpi	happy
hpn,wa,hpn	happen,what happened
hq,hqtrs	headquarters
hr,hrg,hrs	here,hear,hour,hearing,here is, hours
hv,ivnt,hvg	have,haven't, having
hvi	heavy
hw,hws	how? how is?
- I -	
i?	ready? here goes the tape
id	I would
ie	clear? (response: i-go, e-wait)
im	I'm,him,intermodulation
imr	?
info	information
irpt	I repeat
- K -	
k	go ahead,end of transmission
ka	beginning of transmission (formal)
klix	clicks
klvb	que (ke) le vaya bien (Sp) "That it goes well with you"
kn	go ahead, but only the station(s) called, I will answer no other calls,known
knw	know
- L -	
lkg	looking
ll	landline,telephone or telegraph
lng	long
lotsa	lots of
lp	long path (long way around earth)
lsn	listen
ltr	letter, later
lv,lvg	leave,leaving
lw	long wave,"lone wolf" (independent DXer)
- M -	
mag,rag	magazine
mci,mci bcp	merci, merci beaucoup (Fr), thanks
mgr	manager
mi	my
mil,mill,ma	milliamperes,typewriter
min	minute,minimum
mk	mark (opposite of space)
ml,mlg	mail,mailing
mng	morning,meaning
mni	many
mml	manual
mo	moment
msg	message
- N -	
n	no
nd	nothing doing
ng	no good
nil	nothing
nir	lazy "nil"
nm	nothing more,no more
nn	noon
no	know
nr	near,number
nvr	never
nw	now
- O -	
ob,eb	old boy
oc	old chap
ok,ek	all correct
ol	old lady
om,em	old man
op,opr	operator
opn,opg	operation,operating
ot	old timer
- P -	
pa	power amplifier
pbl,pbli	probable,preamble,probably
pctcs	practices
pd	period,paid
pdc	pure dc,clear note
pkg	package,parking
plsr	pleasure
ppgn	propagation
ppl	people
prtbl	portable
pse,pls,psd	please,pleased
psbl,psbli	possible, possibly
psn,psosn	position
pt,ptd,ptg	point,part,pointed,pointing
pwr	power
- Q -	
qfm	tuning from high frequency to middle of band
qff	try sending with left foot awhile
qlm	tuning from low frequency to middle of band
qlz	operator too lazy
qmh	tuning from middle frequency to high frequency
qml	tuning from middle frequency to low frequency
qmt	try mailing your tlc
qmn	man-made electrical noise
qsl	mail card confirming qso
qsl	send card after receiving mine
qst	of interest to all amateurs

- R -	
r	received
rac	rectified ac
rc	rag chew
rcd,rced	received
rcr,rcer,rcvr,rx	receiver
rd	read (copy),red
rdi,rdy	ready
rdo	radio,radio station
re	concerning
reg,regs	regular,regulations
rito	righto
rm	room
rng	running
rockbound,rockbnd	crystal controlled, no vfo
rpt	report,repeat
rq	request
rst	readability 1-5,strength 1-9, tone 1-9
- S -	
sa,sez,sed,sa	say,says,said, South America
sae	self-addressed envelope
sase	self-addressed stamped envelope
sb,ssb	single sideband
sgd	signed
shd,shud,shudn't	should,shouldn't
sig,sigs	signal(s),signature
simo	simultaneously
sked	schedule
sl	see you later
sn	soon,seen,signal/noise
sp	short path (the closer great-circle path)
sri	sorry
ss	sweepstakes
ssn	season,as in "ssns gtgs"
stn	station
su	I'll see you
sum	some
sumbd	somebody
svc	service
svl	several
sw	switch,short wave
sx	dollar sign "\$"
- T -	
tbl,trl	trouble
tfc	traffic,messages
thr	there,their
tmw	tomorrow
tng	tuning,thing
tnk	thank
tnsmn	transmission
tr	transit,position,there,transmit/receive
T/R	transmit/receive
trix	tricks
tt,ts	that,that is
tu,tu,tnx,tk	thank you, thanks
tv,tvi	television,television interference
twx	telegram
tx,trans	transmitter
- U -	
u,up	you,upward in frequency
vfb	very fine business (Rus)
uk	United Kingdom
ul,ud	you will, you would
undld	undelivered
unhrd	unheard
ur,urs	your,yours
ut	universal time,GMT,"Zebra" time
- V -	
va	signing off (same as sk)
vert	vertical
vfb	very fine business
vfo	variable-frequency oscillator
vjo	viejo (Sp),old man
vox	voice-operated switch
vy,vri	very
vxo	variable crystal oscillator
- W -	
w,wat	watt
wa	word after
wat,watsa	what,what do you say?
wb	word before
wd	word,would
wec	who?
wee	we would
wh	white
wid	with
wilco	will comply,will do
wk,wkg	week, weak, work, working, QSOing
wri	worry
wx,wea	weather
- X -	
xtl	crystal
xtr,xmtr	transmitter
xq	fill, or repeat of unreceived copy
- Y -	
yda	yesterday
yl,xyl	young lady,married young lady
yr	year,your
- Z -	
z	Greenwich Mean Time, UT, "zebra"
zedder	New Zealander
zi	zone of the interior (continental USA)
zilch	nothing
NUMBER CODE:	
1 - a	6 - 6
2 - u	7 - b
3 - v	8 - d
4 - e	9 - n
5 - e	0 - t
73	best wishes
88	love and kisses
99 (rare)	keep out



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GREAT CIRCLE BEARINGS IN THE UNITED STATES

ATLANTA, GA.	264	322	47	24	25	301	343	15	86	269	297	320	7	271	310	251	347	145	306	281	281	347	154	345	331	321	234	48	64	48	278	27	318	296	289	308	48	84	WILMINGTON, N. C.
BIRMINGHAM, ALA.	82	326	50	31	40	304	356	26	84	268	299	328	17	270	312	246	5	125	314	287	281	10	142	355	338	0	219	52	67	53	278	37	333	298	290	309	53	83	WASHINGTON, D. C.
BISMARCK, N. D.	132	137	92	97	115	209	114	105	124	167	205	133	104	198	273	165	119	132	148	150	233	123	135	109	108	131	151	99	111	102	217	106	134	237	249	282	107	119	SALT LAKE CITY, UTAH
BOSTON, MASS.	236	241	291	277	247	278	273	267	226	254	275	275	274	262	293	246	263	220	268	253	273	256	207	278	286	249	237	235	219	233	268	258	262	280	280	295	236	217	ST. LOUIS, MO.
BUFFALO, N. Y.	208	217	291	92	206	273	264	237	192	241	269	268	261	252	290	231	243	191	258	237	267	231	184	274	286	225	219	118	160	134	261	199	248	276	276	293	159	174	PHILADELPHIA, PA.
CHARLESTON, W. VA.	208	223	307	61	24	287	309	359	174	251	282	293	345	260	300	238	293	180	279	251	274	270	174	316	311	245	223	66	108	71	269	31	275	286	282	301	80	143	NORFOLK, VA.
CHEYENNE, WYO.	108	112	26	76	91	81	81	103	140	187	83	79	189	319	143	90	113	101	119	241	95	119	76	62	104	128	81	92	83	219	84	98	268	262	303	87	100	PHOENIX, ARIZONA	
CHICAGO, ILL.	161	175	302	82	78	125	272	93	144	221	266	268	80	242	293	210	151	155	245	208	262	157	156	350	308	173	190	91	116	97	254	101	212	274	272	295	106	131	PHILADELPHIA, PA.
CLEVELAND, OHIO	197	209	297	80	55	179	277	277	176	240	272	275	310	252	293	228	245	180	261	235	268	226	175	290	296	219	214	95	136	105	262	127	250	278	277	296	124	156	NASHVILLE, TENN.
COLUMBIA, S. C.	268	267	317	41	10	354	299	329	356	270	295	311	350	271	308	256	326	189	300	279	282	320	174	331	323	297	246	39	53	37	279	7	305	295	290	307	33	85	MINNEAPOLIS, MINN.
DALLAS, TEXAS	81	82	349	57	49	61	325	36	50	80	319	15	45	266	325	157	47	97	15	61	280	55	112	32	11	65	115	60	71	61	277	55	40	308	291	315	63	80	MILWAUKEE, WIS.
DENVER, COLORADO	103	107	22	73	72	87	6	75	77	99	134	74	74	189	325	138	84	109	91	112	246	90	116	70	55	98	124	78	88	80	224	80	91	283	267	308	83	96	MIAMI, FLORIDA
DES MOINES, IOWA	134	144	318	80	78	105	271	84	87	123	197	262	81	231	297	187	105	135	197	171	257	116	141	69	5	133	165	87	104	91	247	92	137	273	270	296	97	115	LOUISVILLE, KY.
DETROIT, MICH.	188	200	295	86	79	164	273	263	129	168	233	268	268	248	291	222	224	174	254	227	265	208	171	282	292	206	207	100	133	109	258	128	238	275	274	294	124	151	LITTLE ROCK, ARK.
EL PASO, TEXAS	77	78	14	58	54	64	8	50	56	76	79	8	42	53	345	98	57	86	48	71	285	62	97	46	33	68	92	61	69	62	290	59	57	335	298	327	64	75	KANSAS CITY, MO.
HELENA, MONTANA	112	116	85	84	88	100	133	97	93	108	134	141	105	92	162	136	101	115	115	122	203	105	119	94	91	111	127	89	98	92	180	94	109	179	224	283	95	104	NEW YORK, N. Y.
HOUSTON, TEXAS	64	50	348	50	40	49	329	25	39	67	338	325	6	34	285	327	34	84	3	26	288	40	103	22	5	46	86	52	60	53	289	45	24	314	297	319	5	68	NEW ORLEANS, LA.
INDIANAPOLIS, IND.	166	185	308	72	58	110	281	332	62	143	234	276	290	41	250	298	220	157	267	226	267	168	158	338	316	188	199	80	107	85	261	80	251	281	277	298	94	127	NASHVILLE, TENN.
JACKSONVILLE, FLA.	327	309	324	33	9	1	308	339	0	8	286	304	323	355	282	314	273	340	314	300	288	338	163	341	332	326	271	29	34	28	287	8	323	303	295	312	23	39	LOS ANGELES, CALIF.
KANSAS CITY, MO.	120	129	332	72	67	90	288	60	73	111	196	278	15	66	236	306	184	82	126	157	262	95	134	50	9	113	157	78	93	81	253	79	97	282	275	302	85	105	LOUISVILLE, KY.
LITTLE ROCK, ARK.	97	104	335	59	48	65	307	26	48	92	243	300	352	41	260	315	208	43	114	338	276	55	128	21	356	71	158	62	76	64	271	56	22	297	286	309	67	89	MIAMI, FLORIDA
LOS ANGELES, CALIF.	81	82	41	62	61	70	52	62	65	79	88	57	60	62	100	19	96	67	87	81	70	94	59	52	76	92	65	71	66	95	67	69	35	319	348	68	78	MILWAUKEE, WIS.	
LOUISVILLE, KY.	166	190	313	66	47	87	287	339	43	137	242	282	301	26	256	302	227	348	156	280	239	271	158	342	322	202	205	71	98	75	266	63	278	285	281	301	82	120	MINNEAPOLIS, MINN.
MIAMI, FLORIDA	337	326	329	22	3	355	313	342	356	355	302	310	329	353	291	318	290	342	345	321	315	293	341	342	335	334	298	18	16	15	293	1	330	308	299	315	11	13	NASHVILLE, TENN.
MILWAUKEE, WIS.	162	175	297	87	88	132	267	170	107	147	218	261	253	99	239	290	207	157	156	235	204	259	160	157	298	172	188	98	121	103	251	111	203	271	270	293	113	135	NEW ORLEANS, LA.
MINNEAPOLIS, MINN.	145	154	291	91	96	123	248	125	108	135	193	242	184	105	227	283	186	132	144	189	175	248	137	146	114	148	169	99	116	104	237	110	159	259	261	287	111	127	NORFOLK, VA.
NASHVILLE, TENN.	140	180	320	59	40	61	295	354	36	114	251	290	318	24	261	307	231	8	142	298	254	275	22	150	353	333	205	63	83	65	271	50	313	291	285	305	68	103	PHILADELPHIA, PA.
NEW ORLEANS, LA.	50	37	337	46	32	38	318	9	28	60	299	313	347	22	283	321	270	17	86	339	339	288	22	114	7	351	23	46	56	47	287	35	359	308	296	315	47	64	PHOENIX, ARIZONA
NEW YORK, N. Y.	233	240	296	54	303	251	281	281	280	223	255	278	280	286	262	294	244	269	213	271	253	274	259	202	287	293	251	237	205	229	269	269	266	283	282	297	235	208	PITTSBURGH, PA.
NORFOLK, VA.	249	253	306	35	342	291	290	303	319	236	264	286	295	318	268	301	253	294	217	285	267	279	284	198	308	307	269	244	25	16	274	322	284	289	286	302	343	208	SALT LAKE CITY, UTAH
PHILADELPHIA, PA.	233	240	298	52	317	255	283	285	289	221	255	279	283	294	263	296	246	273	212	273	255	275	263	199	292	296	252	235	49	197	270	279	269	284	282	298	235	203	ST. LOUIS, MO.
PHOENIX, ARIZONA	80	83	29	61	59	69	35	58	62	79	89	40	.55	59	108	0	100	64	89	62	80	277	70	97	55	45	74	93	64	72	66	64	66	1	300	334	68	79	SALT LAKE CITY, UTAH
PITTSBURGH, PA.	210	221	300	72	18	213	280	286	308	188	246	276	281	310	257	295	235	264	189	268	244	271	246	181	296	299	234	222	85	140	96	265	261	281	279	297	123	165	SEATTLE, WASHINGTON
ST. LOUIS, MO.	134	150	320	70	60	90	287	30	63	119	224	280	319	53	248	303	207	68	137	280	204	267	94	143	20	342	130	179	75	95	79	260	74	284	278	301	84	110	SAN FRANCISCO, CALIF.
SALT LAKE CITY, UTAH	99	101	50	73	74	86	83	79	78	95	118	98	80	76	152	359	123	84	103	91	104	220	88	109	75	67	95	114	78	86	80	181	80	90	254	315	83	92	WASHINGTON, D. C.
SAN FRANCISCO, CALIF.	86	86	54	66	67	75	70	70	70	83	96	75	70	68	109	39	101	73	90	77	88	136	77	96	67	62	81	97	69	76	71	114	71	77	66	1	73	81	WILMINGTON, N. C.
SEATTLE, WASHINGTON	103	105	87	81	84	94	111	92	89	100	118	116	97	88	136	96	120	95	105	103	109	165	97	109	90	88	102	114	85	92	87	147	89	100	128	181	90	97	WASHINGTON, D. C.
WASHINGTON, D. C.	233	240	302	52	342	263	285	293	307	215	256	281	287	308	263	298	245	280	205	277	257	275	268	192	300	302	254	235	53	163	53	270	305	273	285	283	300	189	WILMINGTON, N. C.
WILMINGTON, N. C.	267	267	313	32	355	325	297	318	339	267	270	293	306	335	274	307	258	313	222	296	278	283	305	194	32														

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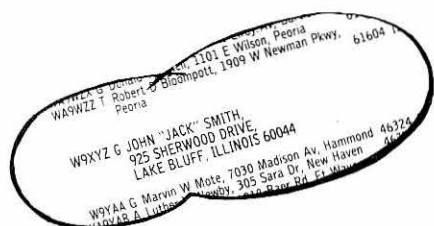
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The table below shows the great circle bearing in degrees and the distance in statute miles, from the point indicated above to countries throughout the world having licensed radio amateurs.

PREFIX	COUNTRY	BEARING	MILES	PREFIX	COUNTRY	BEARING	MILES	PREFIX	COUNTRY	BEARING	MILES
A2C,ZS9	BOTSWANA, MAFEKING	75	10436	KR6,8	RYUKYU IS (OKINAWA)	303	6059	VP8,LU-Z	SCUTH GEORGIA IS	139	8113
AC3	SIKKIM, GANGTOK	331	7527	KS4	SWAN IS	111	2734	VP8,LU-Z	SCUTH GRKNEY IS	148	8086
AC4	TIBET, LHASA	330	7288	KS4B,HK0	SERRANA EANK & RONCADOR GAY	111	3071	VP8,LU-Z	SOUTH SANDWICH IS	140	8577
AC5	BHUTAN	330	7500	KS6	AMERICAN SAMOA	231	4771	VP8,LU-Z	SOUTH SHETLAND IS	151	7876
AP	EAST PAKISTAN, Dacca	328	7686	KV4	VIRGIN IS, CHARLOTTE AMALIE	95	3703	VP9	BERMUDA IS, HAMILTON	79	3230
AP	WEST PAKISTAN, KARACHI	350	8064	KW6	WAKE IS	274	4386	VQ1	ZANZIBAR	33	9959
BV	TAIWAN (FORMOSA), TAIPEI	306	6470	KX6	MARSHALL IS	265	4732	VQ9	CHAGOS IS	334	10072
BY	CHINA, PEKING	319	5921	KZ5	CANAL ZONE, COLON	116	3304	VQ9	SEYCHELLES IS	3	10180
C21,VK9	REP. OF NAURU	258	5173	LA,LF,LJ	NORWAY, OSLO	22	5186	VR1	BRITISH PHOENIX IS	251	5089
C31,PX	ANDORRA, ANDORRA	39	5881	LU	ARGENTINA, BUENOS AIRES	132	6510	VR1	GILBERT, ELLICE & OCEAN IS	249	4935
CE	CHILE, SANTIAGO	139	5909	LX	LUXEMBOURG, LUXEMBOURG	31	5612	VR2	FJJI IS, SUVA	237	5464
CE9	S. SHETLAND IS	152	7850	LZ	BULGARIA, SOFIA	25	6454	VR3	FANNING & CHRISTMAS IS	234	3286
CE0A	EASTER IS	167	4566	M1,9A1	SAN MARINO, SAN MARINO	31	6114	VR4	SCLCMON IS	257	5950
CE0X	SAN FELIX IS	141	5200	MP48	BAHRAIN IS	7	8017	VR5	TONGA IS, NUKUALOFA	230	5312
CE0Z	JUAN FERNANDEZ	145	5606	MP40	CAS IS	5	8096	VR6	PITCAIRN IS	188	4372
CM,CO	CUBA, HAVANA	101	2594	MP4M	MUSCAT & OMAN, MASQAT	359	8175	V55	BRUNEI	295	7730
CN2,B,9	MURGCCO, CASABLANCA	49	5939	MP4Q	QATAR	7	8086	V56	HONG KONG	308	6926
CP	BOLIVIA, LA PAZ	126	5129	MP4T	TRUCIAL STATES	4	8170	V59A,P,5	SOUTH YEMEN, ADEN	16	8843
CR3	PORTUGUESE GUINEA, BISSAU	70	6586	OA	PERU, LIMA	130	4528	V59K	KAMARAN IS	17	8677
CR4	CAPE VERDE IS	72	5995	OD5	LEBANON, BEIRUT	19	7276	VU	INDIA, CALCUTTA	330	7804
CR5	PRINCIPE & SAO TOME IS	62	8258	OE	AUSTRIA, VIENNA	26	5987	VU4	LACCADIVE IS	340	8997
CR6	ANGOLA, NOVA LISBOA	67	9375	OH	FINLAND, HELSINKI	16	5436	VU5	ANDAMAN & NICOBAR IS	319	8312
CR7	MOZAMBIQUE, LOURENCO MARQUES	68	10799	OH0	ALAND IS	18	5355	XE,XF,4A	MEXICO, MEXICO CITY	126	1918
CR8	PORTUGUESE TIMOR	276	7784	OK,OL	CZECHOSLOVAKIA, PRAGUE	26	5822	XE4	REVILLAGIGEDO IS	149	1471
CR9	MACAO	308	6926	ON	BELGIUM, BRUSSELS	31	5503	XT2,FF8	UPPER VOLTA, OUAGADOUGOU	61	7283
CT1	PORTUGAL, LISBON	46	5661	OX,XP	GREENLAND, GODTHAB	34	3331	XU	CAMBODIA, PHNUM PENH	308	7838
CT2	AZORES IS	56	4894	OY	FAEROES IS, TORSHAVN	27	4672	XW8	LAOS, VIENTIANE	314	7593
CT3	MADEIRA IS	55	5597	OZ	NETHERLANDS, AMSTERDAM	24	5454	XZ2	BURMA, RANGOON	319	7913
CX	URUGUAY, MONTEVIDEO	131	6592	PA,PE,PI	NETHERLANDS, AMSTERDAM	30	5478	YA	AFGHANISTAN, KANDAHAR	353	7599
DC,DJ-L	W. GERMAN FEDERAL REP., BONN	30	5586	PJ2	NETH. ANTILLES, CURACAO	104	3733	YB-D,8F,PK	INDONESIA, DJAKARTA	293	8655
DM	E. GERMAN DEM. REP., BERLIN	25	5625	PJ3,9	NETH. ANTILLES, ARUBA	104	3637	YI	IRAG, BAGHDAD	12	7476
DU	PHILIPPINES, MANILA	299	6955	PJ4,9	NETH. ANTILLES, BONAIRE	103	3786	YJ,FUB	NEW HEBRIDES, VILA	243	5938
EA	SPAIN, MADRID	43	5804	PJ5	NETH. ANTILLES, ST. EUSTATIUS	95	3851	YK	SYRIA, CAMASCUS	19	7360
EA6	BALEARIC IS	39	6106	PJ6	NETH. ANTILLES, SABA	94	3812	YN,HT	NICARAGUA, MANAGUA	119	2867
EA8	CANARY IS	58	5911	PJ7	NETH. ANTILLES, SAINT MAARTEN	94	3812	YO	ROMANIA, BUCHAREST	22	6457
EA9	CEUTA & MELILLA	46	5963	PY	BRAZIL, BRASILIA	112	6085	YS	EL SALVADOR, SAN SALVADOR	120	2626
EA9	SPANISH SAHARA(ARIO DE ORO)	60	6188	PY7	FERNANDO DE NORONHA	93	6417	YU,YT	YUGOSLAVIA, BELGRADE	26	6262
EL	IRELAND, DUBLIN	34	5109	PY0	TRINIDADE & MARTIN VAZ IS	105	7282	YV	VENEZUELA, CARACAS	104	3925
EL,5L	LIBERIA, MONROVIA	55	8191	PZ	SURINAM, PARAMARIBO	99	4740	YV0	AVES IS	102	3839
EP	IRAN, TEHRAN	6	7397	SK,SL,SM	SWEDEN, STOCKHOLM	20	5380	ZA	ALBANIA, TIRANA	27	6504
ET3	ETHIOPIA, ADDIS ABABA	24	8997	SP,3Z	POLAND, WARSAW	22	5858	ZB2	GIBRALTAR	40	6336
F	FRANCE, PARIS	33	5550	SU	SUDAN, KHARTOUM	28	8400	ZC4,5B4	CYPRUS, NICOSIA	21	7173
FB8Z	AMSTERDAM & ST. PAUL IS	263	11339	SV	EGYPT, CAIRO	24	7455	ZD3	GAMBIA, BATHURST	70	6489
FB8X	CRUZET IS	155	11815	SV	GREECE, ATHENS	26	6787	ZD5,ZS7	SWAZILAND, MBABANE	70	10697
FB8X	KERGUELEN IS	213	11489	SV	CRETE	27	6998	ZD7	ST. HELENA IS	79	8981
FC	CORSICA	34	6139	SV5	DODECANESE IS	25	6983	ZD8	ASCENSION IS	85	7568
FG7	GUADELOUPE IS	95	3945	TA,TC	TURKEY, ANKARA	19	6848	ZD9	TRISTAN DA CUNHA & GOUGH IS	112	8720
FG8,FB8	CCMORO IS	31	10451	TF	ICELAND, REYKJAVIK	30	4203	ZE	RHODESIA, SALISBURY	57	10339
FK8	NEW CALEDONIA, NOUMEA	242	6219	TG	GUATEMALA, GUATEMALA CITY	120	2530	ZF1,VP5	CAYMAN IS	105	2857
FL8	FRENCH SCAMILLAND, DJIBOUTI	18	8878	TI	COSTA RICA, SAN JOSE	119	3061	ZK1	COOK IS	217	4620
FM7	MARTINIQUE	95	4040	TI9	COCOS IS	126	3224	ZK1	MANTHIKI IS	224	4104
F08	FRENCH POLYNESIA, TAHITI	209	4230	TJ,FE8	CAMEROON, YAOUNDE	56	8341	ZK2	NUE IS	227	5000
F08	CLIPPERTON IS	153	2096	TLB,FQ8	CENTRAL AFRICAN REP., BANGUI	49	8645	ZL	NEW ZEALAND, AUCKLAND	225	6537
FP8	ST. PIERRE & MIQUELON IS	57	3347	TNB,FQ8	CONGO REPUBLIC, BRAZZAVILLE	60	8891	ZL	AUCKLAND & CAMPBELL IS	219	7514
FR7	GLORIOSO IS	22	10484	TRB,FQ8	GABON REPUBLIC, LIBREVILLE	62	8404	ZL	CHATHAM IS	216	6608
FR7	JUAN DE NOVA	36	10760	TTB,FQ8	CHAD REPUBLIC, FORT-LAMY	48	8037	ZL	KERMADEC IS	226	5907
FR7	REUNION IS, SAINT-DENIS	8	11278	TU2,FF4	IVORY COAST, ABIDJAN	68	7520	ZM7	TCKELAU IS	236	4551
FR7	TROMELIN	9	10927	TY,FF8	DAHOMEY REP., PORTO NOVO	62	7818	ZP	PARAGUAY, ASUNCION	125	6025
FS7	SAINT MARTIN IS	94	3812	TZ,FF8	MAH REPUBLIC, BAKAKO	64	6943	ZS1,2,4-6	SCUTH AFRICA, CAPE TOWN	95	10233
FUB,YJ	NEW HEBRIDES, VILA	243	5938	UA,K,V,W	EUROPEAN RUSS.S.F.S.R., MOSCOW	11	5861	ZS2	PRINCE EDWARD & MARION IS	129	11269
F08	WALLIS & FUTUNA IS	236	5035	UA,UK	FRANZ JOSEF LAND	0	4233	ZS3	S.W. AFRICA (NAMIBIA), WINDHOEK	79	9846
FY7	FRENCH GUIANA, CAYENNE	7	9544	UA2,UK	KALININGRADSK	21	5657	3A	MCNACA	34	5968
G	ENGLAND, LONDON	33	5387	UA,K,V,W	ASIATIC RUSSIAN S.F.S.R.	346	5858	3B6,VQ8	AGALEGA IS	1	10527
GC	GUERNSEY & DEPENDENCIES	35	5426	UB,K,T5,Y	UKRAINIAN S.S.R.	16	6245	3B8,VQ8	MAURITIUS IS	359	11219
GC	JERSEY IS	35	5426	UC,UK	WHITE RUSSIAN S.S.R.	17	5860	3B9,VQ8	RODRIGUEZ IS	344	11177
GD	ISLE OF MAN, DOUGLAS	33	5121	UD6,UK	AZERBAIDZHAN S.S.R.	8	7027	3C,EA0	EQUATORIAL GUINEA, BATA	59	8351
GI	NORTHERN IRELAND, BELFAST	33	5016	UF6,UK	GEORGIAN S.S.R.	10	6865	3V8	TUNISIA, TUNIS	36	6450
GM	SCOTLAND, GLASGOW	31	5026	UG6,UK	ARMENIAN S.S.R.	11	6990	3W8,XV5	S. VIETNAM, SAIGON	306	7804
GW	WALES, CARDIFF	34	5297	UH8,UK	TURKISH S.S.R.	358	7067	457	CEYLON, COLOMBO	330	9032
HA,HG	HUNGARY, BUDAPEST	25	6118	UI8,UK	UZBEK S.S.R.	355	6985	4U1	UNITED NATIONS, GENEVA	33	5829
HB	SWITZERLAND, BERN	32	5804	UJ8,UK	TADZHIK S.S.R.	349	7070	4W1,3	YEMEN, SANA	16	8693
HB0,HE	LIECHTENSTEIN, VADUZ	30	5889	UL7,UK	KAZAKH S.S.R.	353	6481	4X4,4Z4	ISRAEL, TEL AVIV	20	7407
HC	ECUADOR, QUITO	122	3848	UM8,UK	KIRGHIZ S.S.R.	347	6890	5A	LIBYA, TRIPOLI	36	6774
HC8	GALAPAGOS IS	134	3331	UO5,UK	MOLDAVIAN S.S.R.	19	6324	5H3,VQ3	TANGANYIKA, DAR-ES-SALAAM	33	10022
HH	HAITI, PORT-AU-PRINCE	99	3285	UP2,UK	LITHUANIAN S.S.R.	18	5668	5N2,ZD2	NGERIA, LAGOS	62	7818
HI	DOMINICAN REP., SANTO DOMINGO	98	3432	UQ2,UK	LATVIAN S.S.R.	17	5623	5R8,FB8	MALAGASY REP., TANANARIVE	27	11027
HK	COLOMBIA, BOGOTA	115	3841	UR2,UK	ESTONIAN S.S.R.	16	5498	5T5,FF7	MAURITANIA, NOUAKCHOTT	66	6316
HK0	MALPELO IS	122	3457	VE1	CANADA, HALIFAX	61	3004	5U7,FF8	NIGER, NIAMEY	57	7370
HM,HL9	SAN ANDRES & PROVIDENCIA IS	113	3066	VE2	CANADA, MONTREAL	61	2515	5V,FD	TGG, LCME	63	7721
HP	KOREA, SECUL	312	5595	VE3	CANADA, TORONTO	65	2282	5W1,ZM6	WESTERN SAMOA, APIA	232	4814
HR	HONDURAS, TEGUCIGALPA	118	2722	VE4	CANADA, WINNIPEG	48	1510	5X5,VQ5	UGANDA, KAMPALA	38	9369
HS	THAILAND, BANGKOK	313	7894	VE5	CANADA, SASKATOON	32	1233	5Z4,VQ4	KENYA, NAIROBI	32	9588
HV	VATICAN CITY	32	6228	VE6	CANADA, EDMONTON	19	1206	601,2,6	SCMALI REP., MOGADISHO	19	5982
HZ,7Z	SAUDI ARABIA, MECCA	19	8159	VE7	CANADA, VANCOUVER	358	775	6W8,FF8	SENEGAL REP., DAKAR	69	6400
I,IR0	ITALY, RCME	32	6228	VK,AX	CANADA, WHITEHORSE	345	1695	6Y5,VP5	JAMAICA, KINGSTON	104	3057
IS	SARDINIA	35	6250	VK2	AUSTRALIA, BRISBANE	245	7072	7G1,3X	REP. OF GUINEA, CONAKRY	71	6779
IT	SICILY	34	6575	VK7	LORD HOWE IS	238	6992	7P8,ZS8	LESOTHO, MASERU	80	10592
JA,JH,JR	JAPAN, TOKYO	303	5118	VK7	TASMANIA IS, HOBART	234	7961	7Q7,ZD6	MALAWI, BLANTYRE	49	10409
JH	OGASAWARA IS (BONIN)	295	5389	VK9A-MZ	PAPUA & NEW GUINEA TERR.	263	6638	7X,FA	ALGERIA, ALGIERS	41	6212
J01	MINAMI-TORI-SHIMA IS (MARCUS)	286	4894	VK9N	NORFOLK IS	235	6448	7Z,HZ	SAUDI ARABIA, MECCA	19	8225
JT1	MONGOLIA, ULAN BATOR	329	5783	VK9X	CHRISTMAS IS	290	8891	8P6,VP6	BARBADOS IS, BRIDGETOWN	97	4175
JW,LA/P	SVABARD IS	8	4289	VK9Y	COCOS IS	296	9438	8Q4,V59M	MALEDIVE IS	337	9461
JY,LA/P	JAN MAYEN IS	18	4176	VK0	HEARD IS	210	11166	8R,VP3	GUYANA, GEORGETOWN	101	4536
K86	BAKER, CANTON, & OTHER IS	246	4291	VK0	MACQUARIE IS	218	7910	8Z4	SAUDI ARABIA/IRAQ NEUTRAL ZONE	12	7759
KC4	NAVASSA IS	102	3163	V01	NEWFOUNDLAND, ST. JOHNS	55	3465	9G1,ZD4	GHANA, ACCRA	64	7672
KC6	CAROLINE IS	277	5919	V02	LABRADOR, HOPEDALE	45	3080	9H1,ZB1	MALTA, VALLETTA	33	6663
KG4	GUANTANAMO BAY, CUBA	100	3084	V01	BRITISH HONDURAS, BELIZE	115	2533	9I,9V,Q2	ZAMBIA, LUSAKA	57	10051
KG6	GUAM	284	5691	VP2A	ANTIGUA, SAINT JOHNS	94	3906	9K2	KUWAIT, AL-KUWAIT	9	7788
KG6I	BCNIN IS (OGASAWARA)	295	5389	VP2D	DCMINICA	95	4040	9K3,8Z5	KUWAIT/S. ARABIA NEUTRAL ZONE	11	7769
KG6I	MARCUS IS (MINAMI-TORI-SHIMA)	286	4894	VP2E	ANGUILLA	94	3812	9L1,ZD1	SIERRA LEONE, FREETOWN	72	6921
KG6R,S,T	MARIANA IS (SAIPAN)	283	5679	VP2G	GUENADA & DEPENDENCIES	99	4108	9M2,V51	WEST MALAYSIA, KUALA LUMPUR	304	8447
KH6	HAWAII, HONOLULU (KURE IS)	251	2419	VP2K	ST. KITTS, NEVIS	95	3851	9M6,V54	EAST MALAYSIA, KUCHING	297	8122
KJ6	JOHNSTON IS	257	3214	VP2L	ST. LUCIA	96	4080	9N1	NEPAL, KATMANDU	334	7565
KL7	ALASKA, ANCHORAGE	232	1998	VP2M	MONTERRAT	94	3906	9Q5,0Q5,0	REP. OF THE CONGO, KINSHASA	60	8891
KM6	MIDWAY IS	375	3197	VP2S	ST. VINCENT & DEPENDENCIES	97	4121	9U5	BURUNDI, BUJUMBURA	44	9439
KP4	PUERTO RICO, SAN JUAN	96	3649	VP2V	BRITISH VIRGIN IS	94	3758	9V1,9M4	SINGAPORE	301	8459
KP6	JARVIS & PALMYRA IS	231	3544	VP5	TURKS & CAICOS IS	95	317				

INTERNATIONAL POSTAL RATES

15

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AIR MAIL RATES are the rate for each half ounce, except where indicated.

QSL CARDS and AEROGRAMMES (air letter sheets) may be sent to any country in the world by air mail for 15¢ (exception: to Canada and Mexico, QSL cards are 9¢ by air mail).

INTERNATIONAL REPLY COUPONS of United States issue may be purchased at United States post offices for 22¢ each. Each coupon is exchangeable at a post office in any country for a stamp or stamps representing the international postage on a single rate surface letter. The column marked "(Air) IRC" indicates the number of international reply coupons required to prepay an air mail letter of the first weight unit from the countries indicated to the United States.

These rates include all revisions up to press time of this issue.

	QSL cards	First class	Air mail	(Air) IRC		QSL cards	First class	Air mail	(Air) IRC		QSL cards	First class	Air mail	(Air) IRC
Afghanistan.....	.10	.15	.21	5	Great Britain.....	.10	.15	.21	2	Pakistan.....	.10	.15	.21	2
Aland Is. (Finland).....	.10	.15	.21	2	Greece (incl. Crete).....	.10	.15	.21	2	Panama.....	.10	.15	.17	2
Albania.....	.10	.15	.21	4	Greenland (Denmark).....	.10	.15	.21	2	Papua Territory (Australia).....	.10	.15	.21	3
Algeria.....	.10	.15	.21	2	Grenada & Grenadines.....	.10	.15	.17	4	Paraguay.....	.10	.15	.17	3
Andorra.....	.10	.15	.21	2	Guadeloupe Is.....	.10	.15	.17	2	Persian Gulf Ports.....	.10	.15	.21	4
Angola (Portugal).....	.10	.15	.21	3	Guatemala.....	.10	.15	.17	2	Peru.....	.10	.15	.17	3
Argentina.....	.10	.15	.17	3	Guiana, French.....	.10	.15	.17	2	Philippines.....	.10	.15	.21	3
Ascension Is. (Great Britain).....	.10	.15	.21	3	Guinea, Portuguese.....	.10	.15	.21	2	Pitcairn Is. (Great Britain).....	.10	.15	.21	
Australia.....	.10	.15	.21	4	Guinea, Republic of.....	.10	.15	.21	2	Poland.....	.10	.15	.21	2
Austria.....	.10	.15	.21	2	Guyana.....	.10	.15	.17	4	Portugal.....	.10	.15	.21	2
Azores Is. (Portugal).....	.10	.15	.21	2										
					Haiti.....	.10	.15	.17	5	Qatar.....	.10	.15	.21	4
Bahama Is. (Great Britain).....	.10	.15	.17	2	Honduras, British.....	.10	.15	.17	2					
Balearic Is. (Spain).....	.10	.15	.21	2	Honduras, Republic of.....	.10	.15	.17	3	Reunion Is. (France).....	.10	.15	.21	2
Barbados Is. (West Indies).....	.10	.15	.17	3	Hong Kong.....	.10	.15	.21	5	Rhodesia.....	.10	.15	.21	5
Belgium.....	.10	.15	.21	2	Hungary.....	.10	.15	.21	2	Romania.....	.10	.15	.21	3
Bermuda Is.....	.10	.15	.17	2						Rwanda.....	.10	.15	.21	2
Bhutan.....	.10	.15	.21		Iceland.....	.10	.15	.21	2	Ryukyu Is.....	.10	.15	.21	
Bolivia.....	.10	.15	.17	2	India.....	.10	.15	.21	3					
Botswana.....	.10	.15	.21	5	Indonesia.....	.10	.15	.21	3	St. Helena Is. (Great Britain).....	.10	.15	.21	3
Brazil.....	.10	.15	.17	2	Iran.....	.10	.15	.21	4	St. Pierre and Miquelon Is. (France).....	.10	.15	.17	2
Brunei.....	.10	.15	.21	8	Iraq.....	.10	.15	.21	3	Samoa, Western (Great Britain).....	.10	.15	.21	4
Bulgaria.....	.10	.15	.21	3	Ireland (Eire).....	.10	.15	.21	3	Saudi Arabia.....	.10	.15	.21	3
Burma.....	.10	.15	.21	4	Israel.....	.10	.15	.21	3	Senegal.....	.10	.15	.21	2
Burundi.....	.10	.15	.21	3	Italy.....	.10	.15	.21	2	Seychelles Is. (Great Britain).....	.10	.15	.21	3
					Ivory Coast.....	.10	.15	.21	2	Sierra Leone.....	.10	.15	.21	3
Cambodia.....	.10	.15	.21	3						Solomon Is. (Great Britain).....	.10	.15	.21	5
Cameroon.....	.10	.15	.21	2	Jamaica.....	.10	.15	.17		Somalia.....	.10	.15	.21	
Canada.....	.06	.08	.11*	2	Japan.....	.10	.15	.21	2	South Africa.....	.10	.15	.21	5
Canary Is. (Spain).....	.10	.15	.21	2	Jordan.....	.10	.15	.21	3	South-West Africa (Namibia).....	.10	.15	.21	5
Cape Verde Is. (Portugal).....	.10	.15	.21	3						South Yemen.....	.10	.15	.21	5
Cayman Is. (West Indies).....	.10	.15	.17	3	Kenya.....	.10	.15	.21	4	Spain.....	.10	.15	.21	2
Central African Republic.....	.10	.15	.21	2	Korea.....	.10	.15	.21	3	Spanish West Africa.....	.10	.15	.21	2
Ceylon.....	.10	.15	.21	5	Kuwait.....	.10	.15	.21	4	Sudan.....	.10	.15	.21	3
Chad.....	.10	.15	.21	2						Surinam.....	.10	.15	.17	1
Chile.....	.10	.15	.17		Laos.....	.10	.15	.21		Swaziland.....	.10	.15	.21	5
China (Taiwan).....	.10	.15	.21	3	Lebanon.....	.10	.15	.21	3	Sweden.....	.10	.15	.21	
China (Mainland).....	.10	.15	.21	3	Leeward Is. (West Indies).....	.10	.15	.17	3	Switzerland.....	.10	.15	.21	2
Colombia.....	.10	.15	.17	3	Lesotho.....	.10	.15	.21	5	Syria.....	.10	.15	.21	3
Comoro Is. (France).....	.10	.15	.21	3	Liberia.....	.10	.15	.21	5					
Congo (Brazzaville).....	.10	.15	.21	2	Libya.....	.10	.15	.21	2	Tanzania.....	.10	.15	.21	4
Congo (Kinshasa).....	.10	.15	.21	2	Liechtenstein.....	.10	.15	.21	2	Tasmania (Australia).....	.10	.15	.21	4
Cook Is. (New Zealand).....	.10	.15	.21	3	Luxembourg.....	.10	.15	.21	2	Thailand.....	.10	.15	.21	3
Corsica (France).....	.10	.15	.21	2						Timor (Portugal).....	.10	.15	.21	4
Costa Rica.....	.10	.15	.17	2	Macao (Portugal).....	.10	.15	.21	3	Togo.....	.10	.15	.21	2
Cuba.....	.10	.15	.17	4	Madeira Is. (Portugal).....	.10	.15	.21	2	Tonga Is. (Great Britain).....	.10	.15	.21	3
Cyprus.....	.10	.15	.21	4	Malagasy Republic (Madagascar).....	.10	.15	.21	3	Trinidad and Tobago Is. (Britain).....	.10	.15	.17	2
Czechoslovakia.....	.10	.15	.21	2	Malawi.....	.10	.15	.21	6	Tristan de Cunha & Gough Is.....	.10	.15	.21	3
					Malaysia.....	.10	.15	.21	5	Tunisia.....	.10	.15	.21	2
Dahomey.....	.10	.15	.21	2	Maldives Is.....	.10	.15	.21	5	Turkey.....	.10	.15	.21	3
Denmark.....	.10	.15	.21	2	Mali Republic.....	.10	.15	.21	2	Turks & Caicos Is. (Great Britain).....	.10	.15	.17	2
Dominican Republic.....	.10	.15	.17	2	Malta (Great Britain).....	.10	.15	.21	2					
					Martinique (France).....	.10	.15	.17	2	Uganda.....	.10	.15	.21	4
Ecuador.....	.10	.15	.17	3	Mauritania.....	.10	.15	.21	2	United States of America -				
Egypt (United Arab Republic).....	.10	.15	.21	2	Mauritius (Great Britain).....	.10	.15	.21	3	Domestic rates only.....	.06	.08	.11*	
El Salvador.....	.10	.15	.17	2	Mexico.....	.06	.08	.11*	2	U. S. S. R.....	.10	.15	.21	
Ethiopia.....	.10	.15	.21	3	Morocco.....	.10	.15	.21	2	Upper Volta.....	.10	.15	.21	2
					Mozambique (Portugal).....	.10	.15	.21	3	Uruguay.....	.10	.15	.17	2
Faeroe Is. (Denmark).....	.10	.15	.21	2	Muscat and Oman.....	.10	.15	.21	4					
Falkland Is. (Great Britain).....	.10	.15	.17	3						Vatican City.....	.10	.15	.21	2
Fiji Is. (Great Britain).....	.10	.15	.21	4	Nauru Is.....	.10	.15	.21	4	Venezuela.....	.10	.15	.17	2
Finland.....	.10	.15	.21	2	Nepal.....	.10	.15	.21	5	Vietnam.....	.10	.15	.21	2
France.....	.10	.15	.21	2	Netherlands.....	.10	.15	.21	2	Virgin Is. (Great Britain).....	.10	.15	.17	2
French Polynesia Is.....	.10	.15	.21	2	Netherlands Antilles.....	.10	.15	.17	1					
French Somaliland (Afars and Issas).....	.10	.15	.21	2	New Caledonia (France).....	.10	.15	.21	2	West Irian (Indonesia).....	.10	.15	.21	3
					New Guinea, N. E. (Australia).....	.10	.15	.21	3	Windward Is. (West Indies).....	.10	.15	.17	2
Gabon Republic.....	.10	.15	.21	2	New Hebrides Is.....	.10	.15	.21	2					
Gambia.....	.10	.15	.21	4	New Zealand.....	.10	.15	.21	3	Yemen.....	.10	.15	.21	
Germany, Western Zone.....	.10	.15	.21	2	Nicaragua.....	.10	.15	.17	4	Yugoslavia.....	.10	.15	.21	3
Germany, Eastern Zone.....	.10	.15	.21	2	Niger.....	.10	.15	.21	2					
Ghana.....	.10	.15	.21	3	Nigeria.....	.10	.15	.21	3	Zambia.....	.10	.15	.21	
Gibraltar (Great Britain).....	.10	.15	.21	2	Northern Ireland.....	.10	.15	.21	2	Zanzibar.....	.10	.15	.21	4
Gilbert and Ellice Is.....	.10	.15	.21	5	Norway.....	.10	.15	.21	2					

* Rate per ounce or fraction

THE GEOGRAPHICAL CENTER OF THE

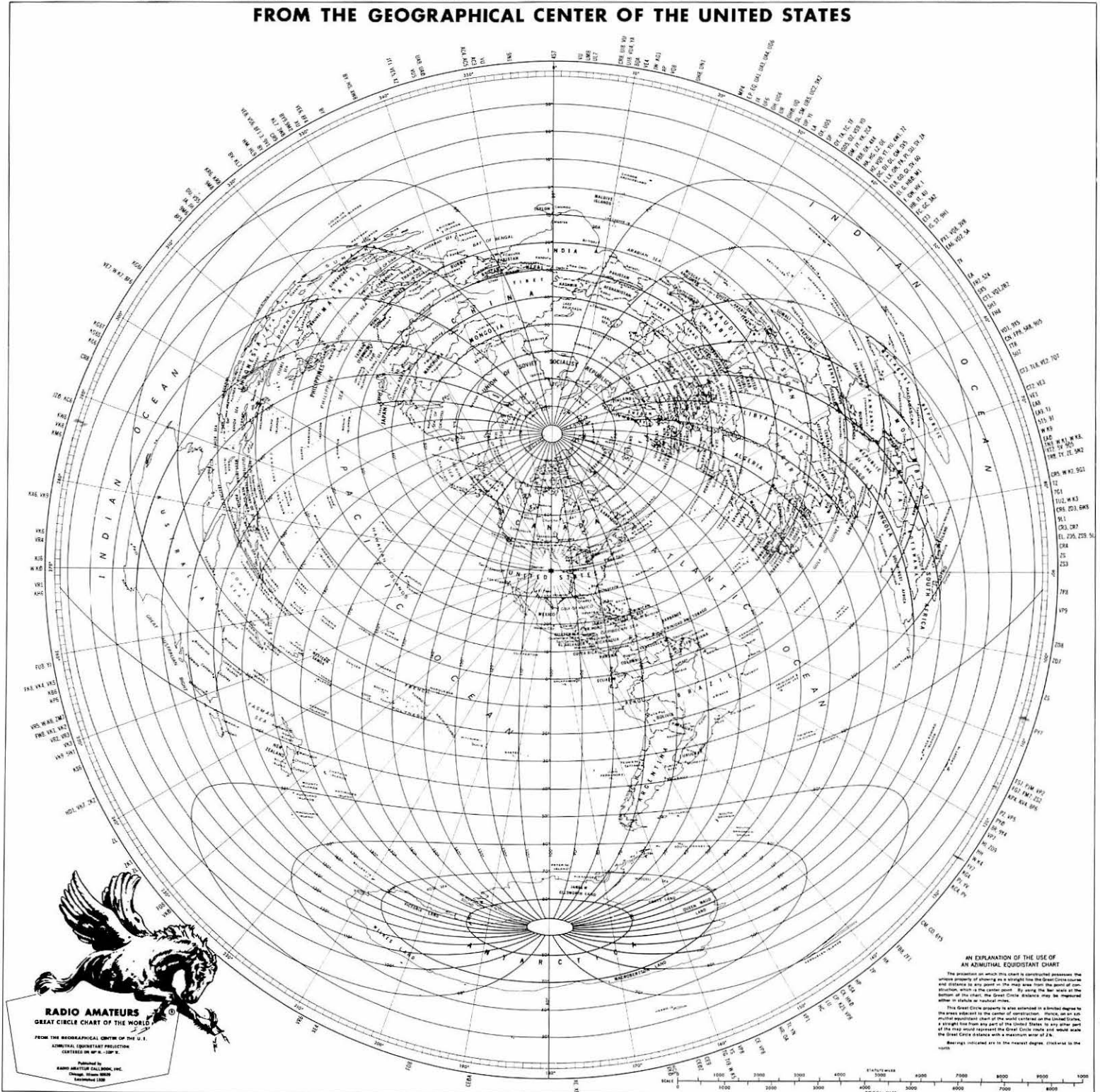
United States

The table below shows the great circle bearing in degrees and the distance in statute miles, from the point indicated above to countries throughout the world having licensed radio amateurs.

PREFIX	COUNTRY	BEARING	MILES	PREFIX	COUNTRY	BEARING	MILES	PREFIX	COUNTRY	BEARING	MILES
A2C,ZS9	BOTSWANA, MAFEKING	90	9229	KR6,8	RYUKYU IS (OKINAWA)	318	6873	VP8,LU-Z	SOUTH GEORGIA IS	146	7507
AC3	SIKKIM, GANGTOK	351	7773	K54	SWAN IS	144	1866	VP8,LU-Z	SOUTH CRKNEY IS	155	7647
AC4	TIBET, LHASA	350	7550	K54B,HK0	SERRANA BANK & RONCADOR CAY	140	2177	VP8,LU-Z	SCUTH SANDWICH IS	146	7980
AC5	BHUTAN	350	7764	K56	AMERICAN SAMOA	247	5080	VP8,LU-Z	SOUTH SHETLAND IS	159	7515
AP	EAST PAKISTAN, DACCA	350	7969	KV4	VIRGIN IS, CHARLOTTE AMALIE	116	2588	VP9	BERMUDA IS, HAMILTON	95	2027
AP	WEST PAKISTAN, KARACHI	13	7872	KW6	WAKE IS	287	5536	VQ1	ZANZIBAR	58	8990
BV	TAIWAN (FORMOSA), TAIPEI	322	7228	KX6	MARSHALL IS	278	5925	VQ9	CHAGOS IS	14	10041
BY	CHINA, PEKING	333	6461	KZ5	CANAL ZONE, COLON	145	2482	VQ9	SEYCHELLES IS	38	9603
C21,VK9	REP. OF NAURU	272	6379	LA,LF,LJ	NORWAY, OSLO	31	4507	VR1	BRITISH PHOENIX IS	266	6293
C31,PX	ANDORRA, ANDORRA	50	4928	LU	ARGENTINA, BUENOS AIRES	147	5846	VR1	GILBERT, ELLICE & OCEAN IS	264	6135
CE	CHILE, SANTIAGO	155	5388	LX	LUXEMBOURG, LUXEMBOURG	41	4778	VR2	FIJI IS, SUVA	251	6609
CE9	S. SHETLAND IS	159	7496	LZ	BULGARIA, SOFIA	38	5694	VR3	FANNING & CHRISTMAS IS	252	4424
CE0A	EASTER IS	189	4677	M1,9A1	SAN MARINO, SAN MARINO	43	5263	VR4	SOLOMON IS	271	7157
CE0X	SAN FELIX IS	161	4752	MP4B	BAHRAIN IS	27	7514	VR5	TONGA IS, NUKUALOFA	244	6403
CE0Z	JUAN FERNANDEZ	163	5217	MP4D	DAS IS	26	7626	VR6	PITCAIRN IS	209	4898
CM,CO	CUBA, HAVANA	133	1586	MP4M	MUSCAT & OMAN, MASQAT	21	7817	V55	BRUNEI	316	8616
CN2,8,9	MOROCCO, CASABLANCA	62	4863	MP4Q	QATAR	28	7578	V56	HONG KONG	326	7625
CP	BOLIVIA, LA PAZ	145	4396	MP4T	TRUCIAL STATES	25	7713	VS9A,P,S	SCUTH YEMEN, ADEN	39	8148
CR3	PORTUGUESE GUINEA, BISSAU	84	5383	OA	PERU, LIMA	153	3897	VS9K	KAMARAN IS	40	7961
CR4	CAPE VERDE IS	86	4790	OD5	LEBANON, BEIRUT	36	6579	VU	INDIA, CALCUTTA	352	8055
CR5	PRINCIPE & SAO TOME IS	78	7079	OE	AUSTRIA, VIENNA	38	5210	VU4	LACCADIVE IS	9	8957
CR6	ANGOLA, NOVA LISBOA	83	8177	OH	FINLAND, HELSINKI	26	4859	VU5	ANDAMAN & NICOBAR IS	344	8750
CR7	MOZAMBIQUE, LOURENCO MARQUES	85	9599	OH0	ALAND IS	28	4740	XE,XF,4A	MEXICO, MEXICO CITY	177	1461
CR8	PORTUGUESE TIMOR	294	8899	OK,OL	CZECHOSLOVAKIA, PRAGUE	38	5048	XE4	REVILLAGIGEDO IS	207	1597
CR9	MACAO	326	7625	ON	BELGIUM, BRUSSELS	41	4666	XT2,FF8	UPPER VOLTA, OUAGADOUGOU	76	6112
CT1	PORTUGAL, LISBON	58	4621	OX,XP	GREENLAND, GODTHAB	33	2531	XU	CAMBODIA, PHNUM PENH	330	8503
CT2	AZORES IS	67	3764	OY	FAEROES IS, TORSHAVN	34	3921	XW8	LAOS, VIENTIANE	335	8165
CT3	MADEIRA IS	67	4473	OZ	DENMARK, COPENHAGEN	34	4740	XZ2	BURMA, RANGOON	342	8367
CC	URUGUAY, MONTEVIDEO	145	5906	PA,PE,PI	NETHERLANDS, AMSTERDAM	40	4659	YA	AFGHANISTAN, KANDAHAR	13	7373
DC,DJ-L	W. GERMAN FEDERAL REP., BONN	40	4770	PJ2	NETH. ANTILLES, CURACAO	127	2714	YB-D,8F,PK	INDONESIA, DJAKARTA	317	9554
DM	E. GERMAN DEM. REP., BERLIN	36	4876	PJ3,9	NETH. ANTILLES, ARUBA	127	2618	YI	IRAQ, BAGHDAD	30	6898
DU	PHILIPPINES, MANILA	316	7813	PJ4,9	NETH. ANTILLES, BONAIRE	126	2756	YJ,FU8	NEW HERBIDES, VILA	257	7117
EA	SPAIN, MADRID	54	4801	PJ5	NETH. ANTILLES, ST. EUSTATIUS	115	2731	YK	SYRIA, DAMASCUS	36	6668
EA6	BALEARIC IS	52	5139	PJ6	NETH. ANTILLES, SABA	114	2684	YN,HT	NICARAGUA, MANAGUA	152	2126
EA8	CANARY IS	71	4765	PJ7	NETH. ANTILLES, SAINT MAARTEN	114	2684	YO	ROMANIA, BUCHAREST	36	5736
EA9	CEUTA & MELILLA	58	4919	PY	BRAZIL, BRASILIA	128	5125	YS	EL SALVADOR, SAN SALVADOR	156	1927
EA9	SPANISH SAHARA(ARIO DE ORO)	73	5029	PY7	FERNANDO DE NORONHA	108	5266	YU,YT	YUGOSLAVIA, BELGRADE	38	5491
EI	IRELAND, DUBLIN	43	4234	PY0	TRINDADE & MARTIM VAZ IS	118	6223	YV	VENEZUELA, CARACAS	127	2907
EL,5L	LIBERIA, MONROVIA	71	7050	PZ	SURINAM, PARAMARIBO	118	3654	YV0	AVES IS	125	2800
EP	IRAN, TEHRAN	24	6939	SK,SL,SM	SWEDEN, STOCKHOLM	29	4738	ZA	ALBANIA, TIRANA	41	5696
ET3	ETHIOPIA, ADDIS ABABA	47	8166	SP,3Z	POLAND, WARSAW	33	5165	ZB2	GIBRALTAR	53	5357
F	FRANCE, PARIS	44	4677	ST	SUDAN, KHARTOUM	48	7537	ZC4,5B4	CYPRUS, NICOSIA	37	6458
FB8Z	AMSTERDAM & ST. PAUL IS	36	12273	SU	EGYPT, CAIRO	41	6676	ZD3	GAMBIA, BATHURST	84	5287
FB8W	CROZET IS	115	10991	SV	GREECE, ATHENS	41	5993	ZD5,ZS7	SWAZILAND, MBABANE	86	9494
FB8X	KERGUELEN IS	143	11635	SV5	CRETE	42	6189	ZD7	ST. HELENA IS	92	7776
FC	CORSICA	46	5244	SV5	DODECANESE IS	40	6204	ZD8	ASCENSION IS	99	6376
FG7	GUADELOUPE IS	115	2827	TA,TC	TURKEY, ANKARA	34	6171	ZD9	TKISTAN CA CUNHA & GOUGH IS	121	7716
FH8,FB6	CCMORO IS	60	9482	TF	ICELAND, REYKJAVIK	34	3431	ZE	RHODESIA, SALISBURY	77	9174
FK8	NEW CALEDONIA, NOUMEA	255	7389	TG	GUATEMALA, GUATEMALA CITY	158	1840	ZF1,VP5	CAYMAN IS	135	1886
FL8	FRENCH SOMALILAND, DJIBOUTI	42	8139	TI	COSTA RICA, SAN JOSE	150	2305	ZK1	COCK IS	234	5582
FM7	MARTINIQUE	115	2923	TJ9	COCOS IS	156	2582	ZK1	MANIHIFI IS	242	5159
F08	FRENCH POLYNESIA, TAHITI	228	5104	TJ,FE8	CAMEROON, YAOUNDE	72	7195	ZK2	NUE IS	243	6071
F08	CLIPPERTON IS	197	2153	TL8,FQ8	CENTRAL AFRICAN REP., BANGUI	67	7542	ZL	NEW ZEALAND, AUCKLAND	238	7572
FP8	ST. PIERRE & MIQUELON IS	63	2231	TN8,FQ8	CONGO REPUBLIC, BRAZZAVILLE	76	7721	ZL	AUCKLAND & CAMPBELL IS	228	8455
FR7	GLORIOSO IS	54	9606	TR8,FQ8	GABON REPUBLIC, LIBREVILLE	77	7228	ZL	CHATHAM IS	228	7528
FR7	JUAN DE NOVA	65	9729	TI8,FQ8	CHAD REPUBLIC, FORT-LAMY	64	6957	ZL	KERMADEC IS	239	6955
FR7	REUNION IS, SAINT-DENIS	55	10477	TU2,FF4	IVORY COAST, ABIDJAN	82	6324	ZM7	TICKLAU IS	251	5693
FR7	TROMELIN	50	10170	TY,FF8	DAHOMY REP., PORTO NOVO	77	6643	ZP	PARAGUAY, ASUNCION	141	5256
F57	SAINT MARTIN IS	114	2684	TZ,FF8	MALI REPUBLIC, BAMAKO	79	5758	ZS1,2,4-6	SCUTH AFRICA, CAPE TOWN	104	9076
F08,YJ	NEW HERBIDES, VILA	257	7117	UA,K,V,W	EUROPEAN RUSS.S.F.S.R., MOSCOW	22	5364	ZS2	PRINCE EDWARD & MARION IS	117	10323
FW8	WALLIS & FUTUNA IS	251	6176	JA1,UK	FRANZ JOSEF LAND	4	4022	Z53	S.W. AFRICA (NAMIBIA), WINDHOEK	92	8641
FY7	FRENCH GUIANA, CAYENNE	36	8955	UA2,UK	KALININGRADSK	31	4986	3A	MENACCO	46	5077
G	ENGLAND, LONDON	43	4524	UA,K,V,W	ASIATIC RUSSIAN S.F.S.R.	358	5870	3B6,VQ8	ACALEGA IS	40	9939
GC	GUERNSEY & DEPENDENCIES	46	4527	UB,K,T5,Y5	UKRAINIAN S.S.R.	29	5630	3B8,VQ8	MAURITIUS IS	49	10550
GC	JERSEY IS	46	4527	UC2,UK	WHITE RUSSIAN S.S.R.	28	5250	3B9,VQ8	RODRIGUEZ IS	41	10738
GD	ISLE OF MAN, DOUGLAS	42	4271	UD6,UK	AZERBAIDZHAN S.S.R.	25	6535	3C,EA0	EQUATORIAL GUINEA, BATA	75	7187
GI	NORTHERN IRELAND, BELFAST	41	4167	UF6,UK	GEORGIAN S.S.R.	26	6342	3V8	TUNISIA, TUNIS	50	5517
GM	SCOTLAND, GLASGOW	40	4202	UG6,UK	ARMENIAN S.S.R.	27	6442	3W8,XV5	S. VIETNAM, SAIGON	328	8512
GW	WALES, CARDIFF	44	4415	UH8,UK	TURKMEN S.S.R.	15	6770	457	CEYLON, COLOMBO	0	9193
HA,HG	HUNGARY, BUDAPEST	38	5357	UI8,UK	UZBEK S.S.R.	12	6752	4U	UNITED NATIONS, GENEVA	45	4951
HB	SWITZERLAND, BERN	43	4944	UJ8,UK	TADZHIK S.S.R.	7	6950	4W1,3	YEMEN, SANA	39	7995
HB0,HE	LIECHTENSTEIN, VADUZ	42	5052	UL7,UK	KAZAKH S.S.R.	8	6313	4X4,4Z4	ISRAEL, TEL AVIV	37	6695
HC	ECUADOR, QUITO	148	3104	UM8,UK	KIRGHIZ S.S.R.	4	6832	5A	LIBYA, TRIPOLI	51	5832
HC8	GALAPAGOS IS	165	2846	UD5,UK	MOLDAVIAN S.S.R.	32	5660	5H3,VQ3	TANGANYIKA, DAR-ES-SALAAM	59	9042
HH	HAITI, PORT-AU-PRINCE	123	2216	UP2,UK	LITHUANIAN S.S.R.	29	5042	5N2,ZD2	NIGERIA, LAGOS	77	6643
HI	DOMINICAN REP., SANTO DOMINGO	122	2356	UQ2,UK	LATVIAN S.S.R.	28	5015	5R8,FB8	MALAGASY REP., TANANARIVE	62	10061
HK	COLOMBIA, BOGOTA	140	2981	UK2,UK	ESTONIAN S.S.R.	26	4911	5T5,FF7	MAURITANIA, NOUAKCHOTT	80	5126
HK0	MALPELO IS	151	2741	VE1	CANADA, HALIFAX	67	1855	5U7,FF8	NIGER, NIAMEY	72	6224
HK0	SAN ANDRES & PROVIDENCIA IS	143	2205	VE2	CANADA, MCINTREAL	64	1374	5V,FD	TOGO, LOME	78	6539
HM,HL9	KOREA, SEUL	325	6280	VE3	CANADA, TORONTO	69	1113	5W1,ZM6	WESTERN SAMOA, APIA	248	5929
HP	PANAMA, PANAMA	145	2482	VE4	CANADA, WINNIPEG	11	701	5X5,VQ5	UGANDA, KAMPALA	60	8359
HR	HONDURAS, TEGUCIGALPA	153	1972	VE5	CANADA, SASKATOON	341	886	5Z4,VQ4	KENYA, NAIROBI	56	8636
HV	THAILAND, BANGKOK	336	8470	VE6	CANADA, EDMONTON	332	1134	601,2,6	SCMALI REP., MOGADISHO	46	8798
IA	VATICAN CITY	45	5358	VE7	CANADA, VANCOUVER	306	1279	6W8,FF8	SENEGAL REP., DAKAR	83	5201
HZ,7Z	SAUDI ARABIA, MECCA	39	7444	VE8	CANADA, WHITEHORSE	326	2063	6Y5,VP5	JAMAICA, KINGSTON	131	2058
I,IR0	ITALY, RCME	45	5358	VK,AX	AUSTRALIA, BRISBANE	258	8257	7G1,3X	REP. OF GUINEA, CONAKRY	85	5576
IS	SARDINIA	48	5337	VK2	LORD HOWE IS	250	8138	7P8,ZS8	LESOTHO, MASERU	93	9387
IT	SICILY	47	5676	VK7	TASMANIA IS, HOBART	243	9066	7Q7,ZD6	MALAWI, BLANTYRE	71	9289
JA,JH,JR	JAPAN, TOKYO	315	5947	VK9AA-MZ	PAPUA & NEW GUINEA TERR.	278	7834	7X,FA	ALGERIA, ALGIERS	53	5227
JD	OGASAWARA IS (BONIN)	308	6330	VK9N	NORFOLK IS	248	7577	7Z,HZ	SAUDI ARABIA, MECCA	39	7504
JD1	MINAMI-TORI-SHIMA IS (MARCUS)	298	5946	VK9X	CHRISTMAS IS	315	9824	8P6,VP6	BARBADOS IS, BRIDGETOWN	116	3068
JT1	MONGOLIA, ULAN BATOR	342	6134	VK9Y	COCOS IS	327	10245	8QA,VS9M	MALDIVES IS	10	9467
JW,LA/P	SVALBARD IS	12	3916	VK0	HEARD IS	162	11501	8R,VP3	GUAYANA, GEORGETOWN	120	3463
JX,LA/P	JAN MAYEN IS	22	3617	VK0	MACQUARIE IS	225	8828	8Z4	SAUDI ARABIA/IRAQ NEUTRAL ZONE	31	7171
K86	JORDAN, AMMAN	36	6726	V01	NEWFOUNDLAND, ST. JOHNS	61	2366	9G1,ZD4	GHANA, ACCRA	79	6487
KC4	BAKER, CANTON, & OTHER IS	261	5482	V02	LABRADOR, HOPEDALE	45	2113	9H1,ZB1	MALTA, VALLETTA	48	5764
KC6	NAVASSA IS	128	2139	VP1	BRITISH HONDURAS, BELIZE	152	1755	9I,9J,VQ2	ZAMBIA, LUSAKA	76	8889
KG4	CAROLINE IS	291	7044	VP2A	ANTIGUA, SAINT JOHNS	114	2780	9K2	KUWAIT, AL-KUWAIT	29	7250
KG6	GUANTANAMC BAY, CUBA	126	2034	VP2D	DOMINICA	115	2923	9K3,8Z5	KUWAIT/S. ARABIA NEUTRAL ZONE	30	7198
KG6	GUAM	298	6750	VP2E	ANGUILLA	114	2684	9L1,ZD1	SIERRA LEONE, FREETOWN	86	5717
KG6I	BCNIN IS (OGASAWARA)	308	6330	VP2G	GRENADA & DEPENDENCIES	119	3024	9M2,VS1	WEST MALAYSIA, KUALA LUMPUR	329	9157
KG6I	MARCUS IS (MINAMI-TORI-SHIMA)	298	5946	VP2K	ST. KITTS, NEVIS	115	2731	9M6,VS4	EAST MALAYSIA, KUCHING	319	8972
KG6R,S,T	MARIANA IS (SAIPAN)	297	6753	VP2L	ST. LUCIA	116	2972	9N1	NEPAL, KATMANDU	355	7729
KH6	HAWAII, HONOLULU (KURE IS)	267	3624	VP2M	MONTERRAT	114	2780	9Q5,OQ5,0	REP. OF THE CONGO, KINSHASA	76	7721
KJ6	JOHNSTON IS	271	4421	VP2S	ST. VINCENT & DEPENDENCIES	117	3021	9U5	BURUNDI, BUJUMBURA	65	8372
KL7	ALASKA, ANCHORAGE	322	2536	VP2V	BRITISH VIRGIN IS	115	2636	9V1,9M4	SINGAPORE	326	9226
KM6	MIDWAY IS	285	4351	VP5	TURKS & CAICOS IS	119	2068	9X5	RWANDA, KIGALI	63	8369
KP4	PUERTO RICO, SAN JUAN	117	2541	VP7</							

RADIO AMATEURS GREAT CIRCLE CHART OF THE WORLD

FROM THE GEOGRAPHICAL CENTER OF THE UNITED STATES



This map available in 4 colors, size 30" x 25". See inside front cover and page 19.

Z-CODE FOR POINT-TO-POINT SERVICE

Asterisk indicates U. S. Military Usage

NOTE: Numbers 1-5 following the "Z" signal mean:

1. Very slight
2. Slight
3. Moderate
4. Severe
5. Extreme

- A -

*ZAA YOU ARE NOT OBSERVING CIRCUIT DISCIPLINE.
 *ZAB YOUR SPEED KEY IMPROPERLY ADJUSTED.
 ZAC Advise (Call sign of) frequency you are reading.
 *ZAC Cease using speed key.
 *ZAD Signal (1) Not understood (2) Not held.
 *ZAE Unable to receive you, try via _____.
 *ZAF Reroute the circuit by patching.
 *ZAH Unable to relay. We file.
 *ZAI Run (foxes, RY's, mk, etc.)
 *ZAJ Have been unable to break you.
 ZAL Alter your wave-length.
 *ZAL Closing down, due to _____.
 ZAN WE CAN RECEIVE ABSOLUTELY NOTHING.
 *ZAN Transmit only msgs of above precedence
 *ZAO CAN'T UNDERSTAND VOICE. USE TELEGRAPH.
 ZAP ACKNOWLEDGE, PLEASE.
 *ZAP Work (simplex, duplex, mux, sb).
 *ZAQ Last word received (sent) was _____.
 ZAR Revert to Automatic Relay.
 *ZAS Rerun tapes run on _____ since _____.
 *ZAT Punching tape for transmission.
 *ZAV Send blind until advised.
 *ZAY Send on (kcs). Will confirm later.
 *ZAX You are causing interference.

- B -

*ZBA Cause of delay is _____.
 *ZBD Following was sent (time).
 *ZBE Retransmit message _____ to _____.
 *ZBG You are sending upper case.
 *ZBH Make call before transmitting traffic.
 *ZBI Listen for telephony.
 *ZBL Do not use break-in.
 *ZBM Put _____ (speed opr.) this frequency.
 ZBN Break and go ahead with New slip.
 *ZBN Your tape reversed.
 *ZBO I HAVE TRAFFIC.
 *ZBP (1) Characters indistinct (2) Spacing bad.
 *ZBQ When & on what frequency was message received.
 ZBR Break circuit. Retuning.
 *ZBR Shall I send by (method).
 ZBS Blurring Signals (1) Dots heavy (2) Dots light.
 *ZBT Count _____ as _____ groups.
 *ZBU Report when in communication with _____.
 *ZBV Answer on _____ mc.
 *ZBW I shift (or ask _____) to (kcs).
 ZBY Pull Back your tape one Yard.

- C -

ZCA Circuit Affected. Make readable signals.
 ZCB Circuit Broken. Signal unheard.
 ZCC Collate Code.
 ZCD Your Collation is Different.
 ZCF CHECK YOUR CENTER FREQUENCY, PLEASE.
 ZCI Circuit Interrupted. Running & available.
 ZCK Check Keying.
 ZCL TRANSMIT CALL LETTERS INTELLIGIBLY.
 ZCO Your Collation Omitted.
 ZCP Conditions Poor, increase to maximum.
 ZCR Using concentrator. Make warning signals.
 ZCS Cease Sending.
 ZCT Send Code Twice.
 ZCW Are you in direct Communication With _____?

- D -

*ZDA Hr. formal message, priority _____.
 *ZDB Expedite reply to my _____.
 ZDC Diagnosing Circuit faults, will advise.
 ZDE Message undelivered. (1) Will keep trying
 (2) Advise disposal (3) Cancelling (4) Btr. ads.
 *ZDE Message _____ undelivered.
 *ZDF Frequency is Drifting to degree indicated, 1-5.
 *ZDG Accuracy of following doubtful.
 ZDH Your Dots are too Heavy (long).
 ZDL Your Dots are too Light (short).
 ZDM Your Dots Missing.
 *ZDM This is a multiple-address message.
 *ZDN Report disposal of message _____.
 *ZDQ Message _____ relayed to _____ at _____ by _____.
 *ZDS Msg just trans erroneous. Correct version is _____.
 ZDT Following Transmitters running Dual.
 *ZDT Don't Transmit exercise messages until advised.
 ZDV Your Dots Varying length, please remedy.
 *ZDV Private message received for _____. Advise.
 *ZDY No private messages until ordered.

- E -

*ZEC Have you received message _____?
 ZED Experiencing Drop-outs, 1-5.
 ZEF We are Experiencing Fill-ins, 1-5.
 ZEG We are Experiencing Garbles, 1-5.
 *ZEI Accuracy of heading doubtful.
 *ZEL No answer required.
 *ZEL This message is correction to _____.
 *ZEN This message is classified.
 *ZEP Parts marked ZEP coming later.
 *ZEU Exercise (drill message).

- F -

ZFA Failing Auto.
 *ZFA Message intercepted or copied blind.
 ZFB SIGNALS ARE FADING BADLY.
 *ZFB Pass this message to _____.
 ZFC Check your FSK shift, please.
 ZFD Depth of Fading is as indicated, 1-5.
 *ZFD This message is a suspected duplicate.
 *ZFF Advise when message received by _____.
 *ZFH Message for (1) Action, (2) Info, (3) Comment.
 *ZFI Reply to message? There is no reply.
 ZFK Revert to FSK.
 ZFO SIGNALS FADED OUT.
 ZFQ/x Frequency shift your signal is _____ cps.
 ZFR Rapidity of Fading is as indicated, 1-5.
 *ZFR Cancel transmission
 ZFS Signals are Fading Slightly.

- G -

*ZGB Send (Answer).
 ZGF _____ signals Good For _____ wpm.
 *ZGF Make call signs more distinctly.
 ZGP Please Give Priority.
 ZGS YOUR SIGNALS GETTING STRONGER.
 ZGW YOUR SIGNALS GETTING WEAKER.

- H -

ZHA How are conditions for Auto reception?
 ZHC HOW ARE YOUR RECEIVING CONDITIONS?
 ZHM/x Harmonic radiation from transmitter.
 ZHS Send High Speed auto _____ wpm.
 ZHY We are Holding Your _____.

- I -

ZIM Industrial or Medical interference, 1-5.
 ZIP Increase Power.
 ZIR You have strong Idle Radiation.
 ZIS Atmospheric Interference, 1-5.

- J -

ZJF Frequency Jumping to degree indicated, 1-5.

- K -

*ZKA Who is controlling station? or I am _____.
 *ZKB Permission necessary before transmitting msgs.
 *ZKD Take control of net _____ or shall I _____.
 *ZKE I (for _____) reports into circuit (net).
 *ZKF Station leaves net temporarily.
 *ZKJ Closing down (until _____).
 ZKO REVERT TO ON/OFF KEYING.
 ZKQ Say when ready to resume.
 *ZKS What Stations Keeping watch on _____?
 ZKW Keying Weight is _____ (percent).

- L -

ZLB Give Long Breaks, please.
 ZLD We are getting Long Dash from you.
 ZLL Distorted LandLine control signals.
 ZLP Low (minimum) Power.
 ZLS WE ARE SUFFERING FROM LIGHTNING STORM.

- M -

ZMG Magnetic activity.
 ZMO STAND BY MOMENT.
 ZMP MisPunch or Perforator failures.
 ZMQ Stand by for _____.
 ZMU/x Multipath making _____ mark bias.

- N -

ZNB No Breaks, we send twice.
 *ZNB Authentication is _____.
 ZNC NO COMMUNICATIONS WITH _____.
 *ZNC All stations authenticate.
 *ZND You are misusing authenticator.
 ZNG Receiving conditions No Good for code.
 ZNI NO CALL LETTERS (IDENTIFICATION) HEARD.
 ZNN ALL CLEAR OF TRAFFIC.
 ZNO Not On the air.
 ZNR Not Received.
 ZNS Here New Slip.

- O -

ZOA Have checked (call-letters) _____ OK.
 *ZOC Relay to your sub-stations.
 ZOD Observing _____ will transfer when better.
 *ZOD Act as radio link between me and _____.
 *ZOE Can you accept message? (or) Give me message.
 *ZOF Relay this message.
 *ZOG Transmit your message (give info.).
 ZOH What traffic have you On Hand?
 ZOK WE ARE RECEIVING OK.
 *ZOK Relay this message via _____.
 ZOL OK. On Line.
 *ZOM Mail delivery permissible.
 ZOR Transmit Only Reversals.
 *ZOU Give instructions for routing traffic.
 *ZOZ Obtain retransmission of message _____.

- P -

ZPA Printer line Advance not received.
 *ZPA Your speech distorted.
 ZPC Printer Carriage-return not received.
 *ZPC Signals fading, 1-5.
 ZPE Punch Everything.
 ZPF Printer motor Fast.
 ZPO Send Plain Once.
 ZPP Punch Plain only.
 ZPR Rerun slip at Present Running.
 ZPS Printer motor Slow.
 ZPT Send Plain Twice.

- R -

ZRA Reverse Auto tape.
 *ZRA Mr frequency OK? Your frequency is _____.
 ZRB Relayed signal Bad, adjust receiver.
 *ZRB Check your frequency on this circuit.
 ZRC Can you Receive Code?
 *ZRC Shall I, or tune your transmitter to _____.
 *ZRE Hear you best on (kcs).
 *ZRF Send tuning signals on present frequency.
 ZRK Reversed Keying.
 ZRL Rerun slip before one now running.
 ZRM Please Remove Modulation from _____.
 *ZRM I receive (usb, lsb, isb's)
 ZRN ROUGH NOTE.
 ZRO ARE YOU RECEIVING OK?
 ZRR Run Reversals.
 ZRS Rerun message No. _____.
 ZRT Revert to Traffic.
 ZRY Run test slip, please.

- S -

ZSF SEND FASTER.
 ZSH STATIC HEAVY HERE.
 ZSI/x Please furnish Signal Intensity.
 ZSM/x Microvolt input to receiver is _____.
 ZSN Give SINPO report on _____ S Signal strength.
 I Interference.
 N Noise.
 P Propagation.
 O Overall readability.

- T -

ZSO Transmit Slips Once.
 ZSR YOUR SIGNALS STRONG & READABLE.
 ZSS Send Slower.
 ZST Transmit Slips Twice.
 ZSU YOUR SIGNALS ARE UNREADABLE.
 ZSV Your Speed Varying.

- U -

ZTA Transmit by Auto.
 ZTH Transmit by Hand.
 ZTI Transmission temporarily Interrupted.
 *ZUA Conditions Unsuitable for Automatic recording.
 *ZUA Timing signal will be transmitted.
 ZUB WE HAVE BEEN UNABLE TO BREAK YOU.
 ZUC UNABLE TO COMPLY. WILL DO SO AT _____.
 *ZUE Affirmative (Yes).
 *ZUG Negative (No).
 *ZUH Unable to comply.
 *ZUJ Wait. Stand by.

- V -

ZVB Varying Bias.
 ZVF Signals Varying in Frequency.
 ZVP Send V's Please.
 *ZVR Pass at once to sub-stations.
 ZVS Signals Varying in intensity.

- W -

*ZWB Name of operator on watch.
 ZWC Wipers or Clicks here.
 ZWO SEND WORDS ONCE.
 ZWR YOUR SIGNALS WEAK BUT READABLE.
 ZWS Wavelength (frequency) is Swinging, 1-5.
 ZWT SEND WORDS TWICE.

- Y -

ZYS WHAT IS YOUR SPEED OF TRANSMISSION?

- Z -

*ZZF Incorrect.
 *ZZG You are correct.
 *ZZH TRY AGAIN.

MULTIPLEX

ZYA Cease traffic; send A's on A channel.
 ZYC Cycling on ARQ, errors stored your end.
 ZYK Check Your Keying on channel _____.
 ZYM Change from single printer to Multiplex.
 ZYN Make bias Neutral.
 ZYP Change from multiplex to single Printer.
 ZYR Please put _____ on MUX revolutions.
 ZYT Check Your Thyratrons.
 ZYX/x Revert to MUX frames _____ channels.

RADIOPHOTO AND FACSIMILE

ZXA Adjust to receive speeds _____.
 ZXC Pix _____ Conditionally accepted.
 ZXD Send Dashes, please.
 ZXF You are Floating Fast.
 ZXH Limits High, reduce _____ cycles.
 ZXJ You are Jumping out of phase.
 ZXK Is your synchronizing correct?
 ZXL Limits are Low, increase _____ cycles.
 ZXO Last run defaced due to _____.
 ZXP Go ahead with Pix.
 ZXS You are floating Slow.
 ZXV Your modulation is Varying.

Sources: Cable and Wireless Ltd.
 U. S. Army Communications Manual SIG 439-2.
 ACP-131 (A), Allied Comms. Procedures.
 W3AFM

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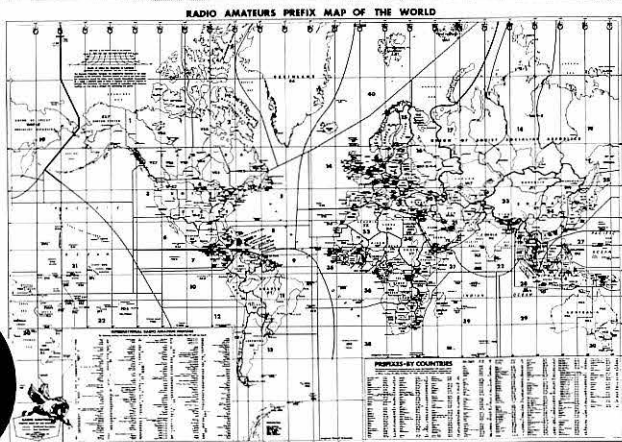
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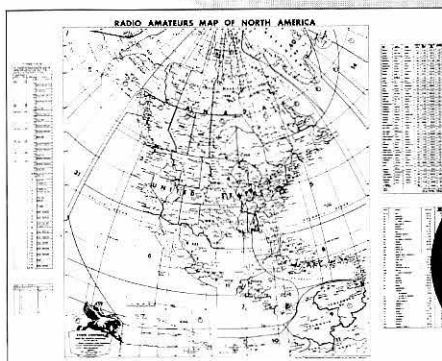
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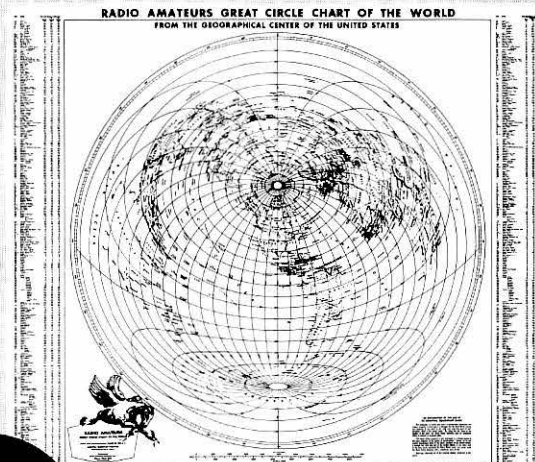


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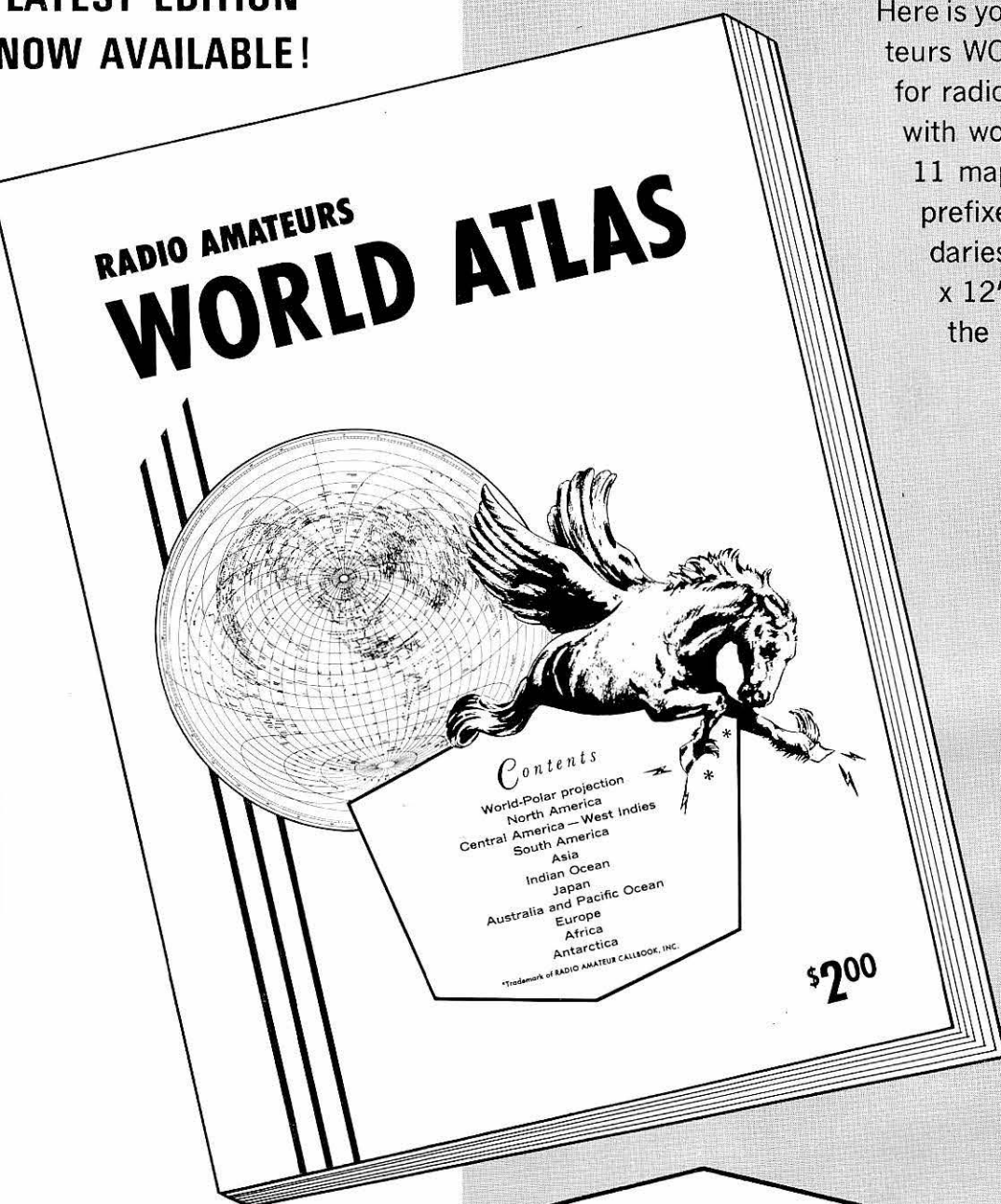
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STANDARD TIME THROUGHOUT THE WORLD

The standard time system is based on the theoretical division of the surface of the globe into 24 zones, each of 15° of longitude. The initial zone is the one which has as its central meridian the Greenwich Meridian and with the meridians 7° 30' E. and 7° 30' W. as its eastern and western limits. Time in this zone is called Greenwich Mean Time, or GMT. Places to the east of Greenwich have faster time than Greenwich, while places to the west have slower time. Not all countries follow the International Time Zone System, but some use the time of some principal city as a standard and others have no standard time.

Reference - "Standard Time Chart of the World" No. 5192, published by U. S. Navy Hydrographic Office, Washington, D. C.

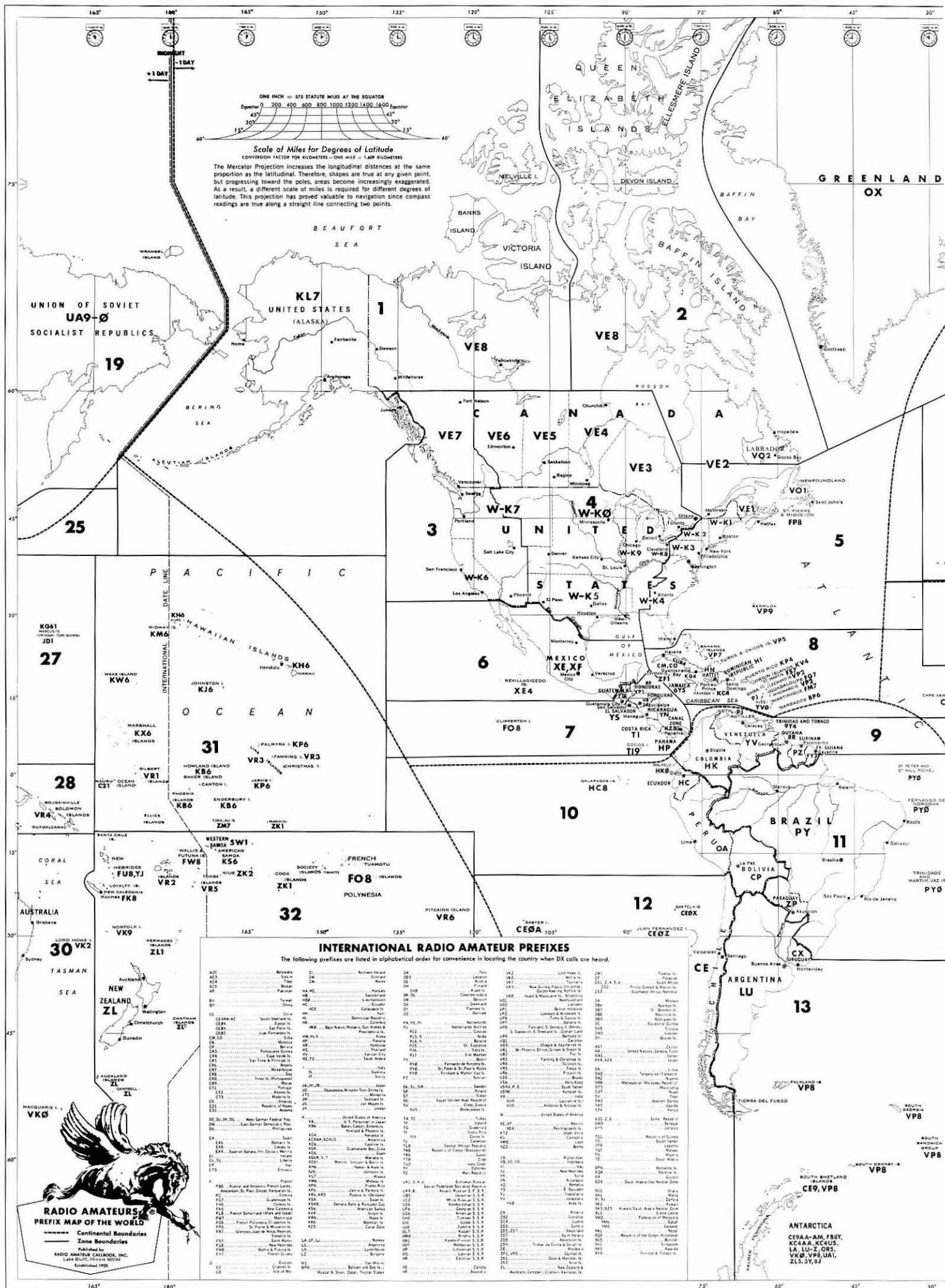
The theoretical system described is applied, in a strict sense, only in oceanic regions. On land or on groups of islands the system is applied with certain local deviations, which, are rendered necessary by frontiers, convenience of an entire island group to maintain same zone time, etc. The time used in each country, whether it is the time of the corresponding zone or modified for reasons given, is an hour fixed by law and, for this reason, is called legal time, or more generally standard time.

Another deviation from this theoretical system is that certain countries, for economic reasons, modify their legal time for part of the year, especially in summer, by advancing it an hour or another fraction of time. Where such deviations are maintained on a year-round basis, the time kept is considered to be standard time.

Country	Standard or Local Time		Country	Standard or Local Time		Country	Standard or Local Time	
	Hours fast or slow of GMT	Time at 1200 hrs. GMT		Hours fast or slow of GMT	Time at 1200 hrs. GMT		Hours fast or slow of GMT	Time at 1200 hrs. GMT
Aden, Kamaran, Socotra Is.	+ 3	15 00	Faeroe Is.	0	12 00	Pakistan, West.	+ 5	17 00
Afghanistan	+ 4 1/2	16 30	Falkland Is.	- 4	08 00	East.	+ 6	18 00
Alaska, Juneau, Ketchikan, Sitka	- 8	04 00	Fanning & Line Is.	- 10	02 00	Panama	+ 5	07 00
Yakutat	- 9	03 00	Fiji Is.	+ 12	24 00	Paraguay	- 4	08 00
Central part, Kodiak Is.	- 10	02 00	Finland, Aland Is.	+ 2	14 00	Peru	- 5	07 00
West coast, Aleutian Is.	- 11	01 00	France, Corsica	+ 1	13 00	Philippines	+ 8	20 00
Albania	+ 1	13 00	French Polynesia	- 10	02 00	Pitcairn Is.	- 10	02 00
Algeria	+ 1	13 00	Gabon	+ 1	13 00	Poland	+ 1	13 00
Amsterdam, St. Paul, Kerguelen Is.	+ 5	17 00	Gambia	0	12 00	Portugal	+ 1	13 00
Andorra	+ 1	13 00	Germany	+ 1	13 00	Prince Edward & Marion Is.	+ 3	15 00
Angola	+ 1	13 00	Ghana	0	12 00	Puerto Rico	- 4	08 00
Argentina	- 4	08 00	Gibraltar	+ 1	13 00			
Ascension Is., St. Helena Is.	0	12 00	Gilbert & Ellice Is.	+ 12	24 00			
Australia, Western Australia	+ 8	20 00	Goa	+ 5 1/2	17 30	Reunion Is.	+ 4	16 00
Northern Territory, South Australia	+ 9 1/2	21 30	Greece, Crete, Dodecanese Is.	+ 2	14 00	Rhodesia, Southern	+ 2	14 00
New South Wales, Queensland, Victoria, Lord Howe Is., Tasmania Is.	+ 10	22 00	Greenland, western	- 4	08 00	Rio Muni	+ 1	13 00
Austria	+ 1	13 00	Guantanamo Bay	- 5	07 00	Romania	+ 2	14 00
Azores Is.	- 1	11 00	Guatemala	- 6	06 00	Rwanda	+ 2	14 00
			Guiana, British	- 3 3/4	08 15	Ryukyu Is. (Okinawa)	+ 9	21 00
Bahama Is.	- 5	07 00	Guiana, French	- 4	08 00			
Bahrain Is.	+ 4	16 00	Guinea, Portuguese	- 1	11 00	Sabah, Sarawak (Malaysia)	+ 8	20 00
Baker, Canton, Enderbury, Howland & Phoenix Is.	- 11	01 00	Guinea, Republic of	0	12 00	St. Pierre & Miquelon Is.	- 3	09 00
Basutoland	+ 2	14 00	Haiti	- 5	07 00	Samoa Is.	- 11	01 00
Bechuanaland	+ 2	14 00	Hawaii	- 10	02 00	San Marino	+ 1	13 00
Belgium	+ 1	13 00	Heard Is.	+ 5	17 00	Sao Tome & Principe Is.	0	12 00
Bermuda Is.	- 4	08 00	Honduras	- 6	06 00	Sarawak	+ 8	20 00
Bhutan	+ 5 1/2	17 30	Hong Kong	+ 8	20 00	Saudi Arabia**		
Bolivia	- 4	08 00	Hungary	+ 1	13 00	Senegal	0	12 00
Bonin, Volcano, Mariana, Saipan, Tinian, Guam Is.	+ 10	22 00				Serrana Bank & Roncador Cay	- 5	07 00
Borneo (Indonesia)	+ 7 1/2	19 30	Iceland	- 1	11 00	Seychelles Is.	+ 4	16 00
Brazil, Fernando Noronha, Trindade & Martin Vaz Is.	- 2	10 00	India	0	12 00	Sierra Leone	0	12 00
East of 52° 30' W (approx.)	- 3	09 00	India, Andaman & Nicobar, Laccadive Is.	+ 5 1/2	17 30	Sikkim	+ 5 1/2	17 30
Amazonas, Matto Grosso	- 4	08 00	Iran	+ 3 1/2	15 30	Singapore	+ 7 1/2	19 30
Acre Territory	- 5	07 00	Iraq	+ 3	15 00	Solomon Is.	+ 11	23 00
British Honduras	- 5 1/2	06 30	Ireland	+ 1	13 00	Somali Republic	+ 3	15 00
British Isles	+ 1	13 00	Israel	+ 2	14 00	Somaliand, French	+ 3	15 00
British Phoenix Is.	- 11	01 00	Italy, Sardinia, Sicily	+ 1	13 00	South Africa	+ 2	14 00
Brunei	+ 8	20 00	Ivory Coast	0	12 00	South Georgia Is., South Sandwich Is.	- 2	10 00
Bulgaria	+ 2	14 00				South Shetland Is., South Orkney Is.		
Burma	+ 6 1/2	18 30	Jamaica	- 5	07 00	South-West Africa	+ 2	14 00
Burundi	+ 2	14 00	Jan Mayen Is.	- 1	11 00	Spain, Balearic Is., Ceuta y Melilla	+ 1	13 00
			Japan	+ 9	21 00	Spanish Sahara (Rio de Oro)	0	12 00
Cambodia	+ 7	19 00	Jarvis & Palmyra Is.	- 10	02 00	Sudan	+ 2	14 00
Cameroon	+ 1	13 00	Java (Indonesia)	+ 7 1/2	19 30	Sumatra Is. (Indonesia), west.	+ 6 1/2	18 30
Canada, Belle Isle, Labrador, Newfoundland	- 3 1/2	08 30	Johnston Is.	- 11	01 00	east.	+ 7	19 00
Anticosti Is., Cape Breton Is., Magdalen Is., New Brunswick, Nova Scotia, Prince Edward Is., Quebec (E of 68°W), Sable Is., Melville Peninsula (east), Ontario (E of 90°W), Quebec (W of 68°W), Southampton Is., Manitoba, Ontario (W of 90°W), Melville Peninsula (west), N.W. Territories (east)	- 4	08 00	Jordan	+ 2	14 00	Surinam (Netherlands Guiana)	- 3 1/2	08 30
Alberta, Saskatchewan, N.W. Territories (middle)	- 6	06 00				Swan Is.	- 6	06 00
British Columbia, N.W. Territories (west)	- 8	04 00	Kenya	+ 3	15 00	Swaziland	+ 2	14 00
Yukon	- 9	03 00	Korea	+ 9	21 00	Sweden	+ 1	13 00
Arctic Is.	- 9	03 00	Kuwait	+ 3	15 00	Switzerland	+ 1	13 00
						Syria	+ 2	14 00
Canal Zone	- 5	07 00	Laos	+ 7	19 00	Taiwan (Formosa)	+ 8	20 00
Canary Is.	0	12 00	Lebanon	+ 2	14 00	Tanganyika	+ 3	15 00
Cape Verde Is.	- 2	10 00	Liberia	- 3/4	11 15	Thailand	+ 7	19 00
Caroline Is., Western	+ 9	21 00	Libya	+ 2	14 00	Tibet	+ 6	18 00
Eastern	+ 11	23 00	Liechtenstein	+ 1	13 00	Timor Is.	+ 8	20 00
Cayman Is.	- 5	07 00	Luxembourg	+ 1	13 00	Togo	0	12 00
Celebes Is. (Indonesia)	+ 8	20 00	Macao	+ 8	20 00	Tokelau Is.	- 11	01 00
Central African Republic	+ 1	13 00	Macquarie Is.	+ 11	23 00	Tonga (Friendly) Is.	+ 13	01 00
Ceylon Is.	+ 5 1/2	17 30	Madeira Is.	- 1	11 00	Tristan de Cunha & Gough Is.	0	12 00
Chad	+ 1	13 00	Malagasy Republic (Madagascar Is.)	+ 3	15 00	Tromelin Is.	+ 4	16 00
Chagos Is.	+ 5	17 00	Malawi (Nyasaland)	+ 2	14 00	Trucial Oman	+ 4	16 00
Chatham Is.	+ 12 3/4	00 45	Malawi	+ 7 1/2	19 30	Tunisia	+ 1	13 00
Chile, Juan Fernandez Is.	- 4	08 00	Maldives Is.	+ 5	17 00	Turkey	+ 2	14 00
China, Western part	+ 5	17 00	Mali Republic	0	12 00			
Mid-western part	+ 6	18 00	Malta Is.	+ 1	13 00	Uganda	+ 3	15 00
Mid-eastern part	+ 7	19 00	Manchuria	+ 8	20 00	United States of America, Eastern time	- 5	07 00
Eastern part	+ 8	20 00	Manihiki Is.	- 11	01 00	Central time	- 6	06 00
Christmas Is.	+ 7	19 00	Marshall Is., Wake Is.	+ 12	24 00	Mountain time	- 7	05 00
Clipperton Is.	- 7	05 00	Mauritania	0	12 00	Pacific time	- 8	04 00
Cocos-Keeling Is.	+ 6 1/2	18 30	Mauritius & Rodriguez Is.	+ 4	16 00	Upper Volta	0	12 00
Colombia, San Andres & Providencia Is.	- 5	07 00	Mexico, east of states of Sonora, Sinaloa & Nayarit	- 6	06 00	Uruguay	- 3	09 00
Comora Is.	+ 3	15 00	Sonora, Sinaloa, Nayarit, Baja California (south of 28°N), Revillagigedo Is.	- 7	05 00			
Congo, Republic of (Brazzaville)	+ 1	13 00	Baja California (north of 28°N)	- 8	04 00	U. S. S. R., Estonia, Latvia, Lithuania, Karelo-Finnish, White Russia, Ukraine, Moldavia,		
Congo, Republic of the (Leopoldville), western part	+ 1	13 00	Midway Is.	- 11	01 00	European Russia	+ 3	15 00
eastern part	+ 2	14 00	Molucca Is. (Indonesia)	+ 8 1/2	20 30	Georgia, Armenia, Azerbaidzhan	+ 4	16 00
Cook Is.	- 10 1/2	01 30	Monaco	+ 1	13 00	Kazakh, Uzbek, Turkmen, Tadzhik	+ 5	17 00
Costa Rica, Cocos Is.	- 6	06 00	Mongolia*	0	12 00	Kirghiz, West Siberian region	+ 6	18 00
Crozet Is.	+ 3	15 00	Morocco	0	12 00	Approx. 82°30' to 97°30' W.	+ 7	19 00
Cuba	- 5	07 00	Mozambique	+ 2	14 00	Buryat, East Siberian region	+ 8	20 00
Cyprus Is.	+ 2	14 00	Muscat & Oman	+ 4	16 00	Approx. 112°30' to 127°30' W.	+ 9	21 00
Czechoslovakia	+ 1	13 00				Kuril Is., Sakhalin Is.	+ 10	22 00
			Nauru Is., Norfolk Is.	+ 11 1/2	23 30	Approx. 142°30' to 157°30' W.	+ 11	23 00
Dahomey	+ 1	13 00	Navassa Is.	- 5	07 00	Approx. 157°30' to 172°30' W.	+ 12	24 00
Das Is.	+ 4	16 00	Nepal	+ 5 1/2	17 30	Approx. 172°30' W. to coast	+ 13	01 00
Denmark	+ 1	13 00	Netherlands	+ 1	13 00			
Dominican Republic	- 5	07 00	Netherlands Antilles	+ 4 1/2	07 30	Venezuela	- 4	08 00
			New Caledonia Is., New Hebrides Is.	+ 11	23 00	Vietnam	+ 8	20 00
Easter Is.	- 7	05 00	New Guinea N.E., Papua	+ 10	22 00			
Ecuador, Galapagos Is.	- 5	07 00	New Zealand, Kermadec Is.	+ 12	24 00	Wallis & Futuna Is.	+ 12	24 00
Egypt	+ 2	14 00	Nicaragua	- 6	06 00	West Irian (Netherlands New Guinea)	+ 9 1/2	21 30
El Salvador	- 6	06 00	Niger	+ 1	13 00	West Indies, Barbados, Trinidad, Tobago, Guadeloupe, Martinique, Leeward Is., Windward Is.	- 4	08 00
Ethiopia	+ 3	15 00	Nigeria	+ 1	13 00			
			Niue Is.	- 11	01 00	Yemen**		
			Norway, Svalbard Is.	+ 1	13 00	Yugoslavia	+ 1	13 00
						Zambia (Northern Rhodesia)	+ 2	14 00
						Zanzibar Is.	+ 3	15 00

* No definite standard time used.

** "Arabic Time", i.e. daily all watches are set to midnight at sundown.





The following countries listed in alphabetical order by country show international radio amateur prefixes

[illegible]

INTERNATIONAL "Q" SIGNALS

Abbreviation	Question	Answer or Advice	Abbreviation	Question	Answer or Advice
QRA	What is the name of your station?	The name of my stations is . . .	QSX	Will you listen to . . . [call sign(s)] on . . . kc/s (or Mc/s)	I am listening to . . . [call sign(s)] on . . . kc/s (or Mc/s).
QRB	How far approximately are you from my station?	The approximate distance between our stations is . . . nautical miles (or kilometres)	QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency [or on . . . kc/s (or Mc/s)].
QRD	Where are you bound and where are you from?	I am bound for . . . from . . .	QSZ	Shall I send each word or group more than once?	Send each word or group twice (or . . . times).
QRG	Will you tell me my exact frequency or that of . . .?	Your exact frequency (or that of . . . is . . . kc/s (or Mc/s).	QTA	Shall I cancel telegram number . . . as if it had not been sent?	Cancel telegram number . . . as if it had not been sent.
QRH	Does my frequency vary?	Your frequency varies.	QTB	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.
QRI	How is the tone of my transmission?	The tone of your transmission is . . . (1. Good; 2. Variable; 3. Bad).	QTC	How many telegrams have you to send?	I have . . . telegrams for you (or for . . .).
QRK	What is the readability of my signals (or those of . . .)?	The readability of your signals (or those of . . .) is . . . (1. Unreadable; 2. Readable now and then; 3. Readable, but with difficulty; 4. Readable; 5. Perfectly readable).	QTE	What is my TRUE bearing from you? What is my TRUE bearing from . . . (call sign)? What is the TRUE bearing of . . . (call sign) from . . . (call sign)?	Your TRUE bearing from me is . . . degrees (at . . . hours) Your TRUE bearing from . . . (call sign) was . . . degrees (at . . . hours) The TRUE bearing of . . . (call sign) from . . . (call sign) was . . . degrees at . . . hours.
QRL	Are you busy?	I am busy (or I am busy with . . .). Please do not interfere.	QTH	What is your position in latitude and longitude (or according to any other indication)?	My position is . . . latitude . . . longitude (or according to any other indication).
QRM	Are you being interfered with?	I am being interfered with.	QTI	What is your TRUE track?	My TRUE track is . . . degrees.
QRN	Are you troubled by static?	I am troubled by static.	QTL	What is your TRUE heading?	My heading is . . . degrees.
QRO	Shall I increase power?	Increase power.	QTN	At what time did you depart from . . . (place)?	I departed from . . . (place) at . . . hours.
QRP	Shall I decrease power?	Decrease power.	QTO	Have you left dock (or port)? Are you airborne?	I have left dock (or port) I am airborne.
QRQ	Shall I send faster?	Send faster (. . . words per minute).	QTP	Are you going to enter dock (or port)? Are you going to alight (or land)?	I am going to enter dock (or port) I am going to alight (or land).
QRR	Are you ready for automatic operation?	I am ready for automatic operation. Send at . . . words per minute.	QTR	What is the correct time?	The correct time is . . . hours.
QRS	Shall I send more slowly?	Send more slowly (. . . words per minute).	QTS	Will you send your call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s)] so that your frequency may be measured?	I will send my call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s)] so that my frequency may be measured.
QRT	Shall I stop sending?	Stop sending.	QTV	What are the hours during which your station is open?	My station is open from . . . to . . . hours.
QRU	Have you anything for me?	I have nothing for you.	QTX	Shall I stand guard for you on the frequency of . . . kc/s (or Mc/s) (from . . . to . . . hours)?	Stand guard for me on the frequency of . . . kc/s (or Mc/s) (from . . . to . . . hours).
QRV	Are you ready?	I am ready.	QUA	Will you keep your station open for further communication with me until further notice (or until . . . hours)?	I will keep my station open for further communication with you until further notice (or until . . . hours).
QRW	Shall I inform . . . that you are calling him on . . . kc/s (or Mc/s).	Please inform . . . that I am calling him on . . . kc/s (or Mc/s).	QUB	Have you news of . . . (call sign)?	Here is news of . . . (call sign).
QRX	When will you call me again?	I will call you again at . . . hours [on . . . kc/s (or Mc/s)].	QUC	Can you give me, in the following order, information concerning: visibility, height of clouds, direction and velocity of ground wind at . . . (place of observation)?	Here is the information requested . . .
QRY	What is my turn?	Your turn is Number . . . (Relates to communication.)	QUD	What is the number (or other indication) of the last message you received from me [or from (call sign)]?	The number (or other indication) of the last message I received from you [or from . . . (call sign)] is . . .
QRZ	Who is calling me?	You are being called by . . . [on . . . kc/s (or Mc/s)].	QUE	Have you received the urgency signal sent by . . . (call sign of mobile station)?	I have received the urgency signal sent by . . . (call sign of mobile station) at . . . hours.
QSA	What is the strength of my signals (or those of . . .)?	The strength of your signals (or those of . . .) is . . . (1. Scarcely perceptible; 2. Weak; 3. Fairly good; 4. Good; 5. Very good).	QUF	Have you received the distress signal sent by . . . (call sign of mobile station)?	I have received the distress signal sent by . . . (call sign of mobile station) at . . . hours.
QSB	Are my signals fading?	Your signals are fading.	QUG	Will you be forced to alight (or land)?	I am forced to alight (or land immediately).
QSD	Is my keying defective?	Your keying is defective.	QUH	Will you give me the present barometric pressure at sea level?	I shall be forced to alight (or land) at . . . (position or place).
QSG	Shall I send . . . telegrams at a time?	Send . . . telegrams at a time.			The present barometric pressure at sea level is . . . (units).
QSH	What is the charge to be collected per word to . . . including your internal telegraph charge?	The charge to be collected per word to . . . including my internal telegraph charge is . . . francs.			
QSK	Can you hear me between your signals?	I can hear you between my signals.			
QSL	Can you acknowledge receipt?	I am acknowledging receipt.			
QSM	Shall I repeat the last telegram which I sent you, or some previous telegram?	Repeat the last telegram which you sent me [or telegram(s) number(s) . . .].			
QSN	Did you hear me [or . . . (call sign)] on . . . kc/s (or Mc/s)?	I did hear you [or . . . (call sign) on . . . kc/s (or Mc/s)].			
QSO	Can you communicate with . . . direct or by relay?	I can communicate with . . . direct (or by relay through . . .).			
QSP	Will you relay to . . . free of charge?	I will relay to . . . free of charge.			
QSQ	Have you a doctor on board [or is . . . (name of person) on board]?	I have a doctor on board [or . . . (name of person) is on board].			
QSU	Shall I send or reply on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .)?	Send or reply on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .).			
QSV	Shall I send a series of V's on this frequency [or . . . kc/s (or Mc/s)]?	Send a series of V's on this frequency [or . . . kc/s (or Mc/s)].			
QSW	Will you send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .)?	I am going to send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .).			

CENSUS OF AMATEUR RADIO LICENSES* in the U.S.A.

by classes, within states and call areas

Call Area	State	Novice	Tech- nician	Con- ditional	General	Advanced	Extra	Club	Military	State totals	YL's (Included in state totals)
#1	Conn.	376	681	708	1,654	965	264	77	7	4,732	164
	Maine	79	118	522	380	298	83	17	2	1,499	64
	Mass.	603	2,890	555	3,920	2,057	482	125	21	10,653	441
	N.H.	73	397	190	563	289	69	26	3	1,610	76
	R.I.	64	451	104	545	251	59	22	5	1,501	68
	Vermont	54	80	207	168	129	29	11	2	680	42
		<u>1,249</u>	<u>4,617</u>	<u>2,286</u>	<u>7,230</u>	<u>3,989</u>	<u>986</u>	<u>278</u>	<u>40</u>	<u>20,675</u>	<u>855</u>
#2	N.J.	853	3,132	357	4,736	2,659	655	168	11	12,571	321
	N.Y.	<u>1,866</u>	<u>5,498</u>	<u>773</u>	<u>8,715</u>	<u>4,581</u>	<u>1,061</u>	<u>333</u>	<u>35</u>	<u>22,862</u>	<u>732</u>
		<u>2,719</u>	<u>8,630</u>	<u>1,130</u>	<u>13,451</u>	<u>7,240</u>	<u>1,716</u>	<u>501</u>	<u>46</u>	<u>35,433</u>	<u>1,053</u>
#3	Del.	88	111	36	264	142	32	10	2	685	19
	D.C.	31	60	20	179	124	48	19	7	488	6
	Md.	422	785	244	2,011	1,316	345	66	27	5,216	142
	Pa.	<u>1,136</u>	<u>3,517</u>	<u>756</u>	<u>5,687</u>	<u>2,765</u>	<u>631</u>	<u>222</u>	<u>28</u>	<u>14,742</u>	<u>496</u>
		<u>1,677</u>	<u>4,473</u>	<u>1,056</u>	<u>8,141</u>	<u>4,347</u>	<u>1,056</u>	<u>317</u>	<u>64</u>	<u>21,131</u>	<u>663</u>
#4	Alabama	284	590	676	1,182	587	130	25	17	3,491	150
	Florida	743	1,737	1,731	3,733	2,667	538	110	22	11,281	457
	Georgia	267	543	793	1,365	739	173	44	13	3,937	110
	Ky.	255	430	448	729	460	96	29	9	2,456	73
	N.C.	351	589	869	1,393	865	169	45	11	4,292	142
	S.C.	175	162	847	452	316	88	18	12	2,070	70
	Tenn.	378	1,052	572	1,345	898	181	49	7	4,482	169
	Va.	377	816	764	2,022	1,280	344	58	34	5,695	126
		<u>2,830</u>	<u>5,919</u>	<u>6,700</u>	<u>12,221</u>	<u>7,812</u>	<u>1,719</u>	<u>378</u>	<u>125</u>	<u>37,704</u>	<u>1,297</u>
#5	Ark.	174	284	369	489	371	79	26	7	1,799	91
	La.	280	408	608	1,036	636	136	37	14	3,155	112
	Miss.	108	130	403	446	303	45	10	4	1,449	44
	N.M.	118	167	520	349	362	108	18	10	1,652	63
	Okla.	337	649	457	986	699	130	38	38	3,334	155
	Texas	<u>1,138</u>	<u>2,492</u>	<u>2,822</u>	<u>4,599</u>	<u>3,120</u>	<u>636</u>	<u>159</u>	<u>52</u>	<u>15,018</u>	<u>736</u>
		<u>2,155</u>	<u>4,130</u>	<u>5,179</u>	<u>7,905</u>	<u>5,491</u>	<u>1,134</u>	<u>288</u>	<u>125</u>	<u>26,407</u>	<u>1,201</u>
#6	Calif.	<u>2,863</u>	<u>7,944</u>	<u>3,492</u>	<u>14,264</u>	<u>9,599</u>	<u>1,824</u>	<u>509</u>	<u>96</u>	<u>40,591</u>	<u>1,484</u>
#7	Arizona	206	661	590	1,037	820	157	31	19	3,521	166
	Idaho	112	64	426	166	210	34	13	0	1,025	57
	Montana	122	44	570	133	167	48	17	4	1,105	54
	Nevada	71	109	402	152	182	29	10	6	961	52
	Oregon	472	511	759	1,358	941	163	53	9	4,266	219
	Utah	192	238	165	453	289	54	15	10	1,416	55
	Wash.	710	977	1,135	2,291	1,554	317	74	19	7,077	372
	Wyoming	57	37	221	94	79	23	16	4	531	26
		<u>1,942</u>	<u>2,641</u>	<u>4,268</u>	<u>5,684</u>	<u>4,242</u>	<u>825</u>	<u>229</u>	<u>71</u>	<u>19,902</u>	<u>1,001</u>
#8	Mich.	1,116	2,654	945	3,882	2,063	323	131	11	11,125	403
	Ohio	1,565	5,080	638	5,477	2,756	480	208	18	16,222	602
	W.Va.	169	341	175	633	287	76	17	5	1,703	48
		<u>2,850</u>	<u>8,075</u>	<u>1,758</u>	<u>9,992</u>	<u>5,106</u>	<u>879</u>	<u>356</u>	<u>34</u>	<u>29,050</u>	<u>1,053</u>
#9	Ill.	1,253	3,206	1,544	5,236	2,839	488	212	19	14,797	553
	Ind.	708	1,921	511	2,203	1,149	211	116	8	6,827	300
	Wisc.	555	758	816	1,586	985	178	69	15	4,962	123
		<u>2,516</u>	<u>5,885</u>	<u>2,871</u>	<u>9,025</u>	<u>4,973</u>	<u>877</u>	<u>397</u>	<u>42</u>	<u>26,586</u>	<u>976</u>
#10	Colo.	332	533	641	1,175	826	157	57	15	3,736	167
	Iowa	444	515	529	1,524	896	153	68	8	4,137	154
	Kans.	318	381	850	1,034	627	155	34	17	3,416	165
	Minn.	561	510	792	1,687	990	227	65	6	4,838	144
	Mo.	541	1,030	797	1,916	1,163	247	79	12	5,785	219
	Nebr.	206	274	451	664	424	62	32	2	2,115	102
	N.D.	65	11	410	63	102	22	9	3	685	39
	S.D.	103	44	234	220	173	33	14	3	824	52
		<u>2,570</u>	<u>3,298</u>	<u>4,704</u>	<u>8,283</u>	<u>5,201</u>	<u>1,056</u>	<u>358</u>	<u>66</u>	<u>25,536</u>	<u>1,042</u>
KH6	Hawaii	145	86	224	476	365	62	24	26	1,408	43
KL7	Alaska	134	98	214	367	239	61	9	61	1,183	83
Grand total, 50 states and D.C. only		<u>23,650</u>	<u>55,796</u>	<u>33,882</u>	<u>97,039</u>	<u>58,604</u>	<u>12,195</u>	<u>3,644</u>	<u>796</u>	<u>285,606</u>	<u>10,751</u>

* From the Fall 1971 Radio Amateur Callbook Magazine.

NEW YORK, N.Y.

The table below shows the great circle bearing in degrees and the distance in statute miles, from the point indicated above to countries throughout the world having licensed radio amateurs.

PREFIX	COUNTRY	BEARING	MILES	PREFIX	COUNTRY	BEARING	MILES	PREFIX	COUNTRY	BEARING	MILES
A2C,ZS9	BOTSWANA, MAFEKING	105	7879	KR6,8	RYUKYU IS (OKINAWA)	339	7557	VP8,LU-Z	SCUTH GEORGIA IS	159	6911
AC3	SIKKIM, GANGTOK	16	7644	KS4	SWAN IS	203	1743	VP8,LU-Z	SOUTH ORKNEY IS	166	7223
AC4	TIBET, LHASA	14	7468	KS48,HK0	SERRANA EAK & RONCADOR CAY	193	1881	VP8,LU-Z	SOUTH SANDWICH IS	156	7348
AC5	BHUTAN	15	7658	KS6	AMERICAN SAMOA	264	7211	VP8,LU-Z	SCUTH SHETLAND IS	170	7192
AP	EAST PAKISTAN, Dacca	16	7860	KV4	VIRGIN IS, CHARLOTTE AMALIE	158	1661	VP9	BERMUDA IS, HAMILTON	137	786
AP	WEST PAKISTAN, KARACHI	36	7264	KW6	WAKE IS	303	6759	VQ1	ZANZIBAR	79	7702
AV	TAIWAN (FORMOSA), TAIPEI	345	7804	KX6	MARSHALL IS	296	7220	VQ9	CHAGOS IS	50	9265
BY	CHINA, PEKING	352	6833	KZ5	CANAL ZONE, COLON	191	2222	VQ9	SEYCHELLES IS	65	8502
C21,VK9	REP. OF NAUUR	290	7712	LA,LF,LJ	NORWAY, CSLO	38	3689	VR1	BRITISH PHOENIX IS	283	7650
C31,PX	ANDORRA, ANDORRA	62	3767	LU	ARGENTINA, BUENOS AIRES	167	5335	VR1	GILBERT, ELLICE & OCEAN IS	281	7497
CE	CHILE, SANTIAGO	177	5102	LX	LUXEMBOURG, LUXEMBOURG	51	3757	VR2	FIJI IS, SUVA	267	7957
CE9	S. SHETLAND IS	171	7184	LZ	LUXEMBURG, SOFIA	52	4697	VR3	FANNING & CHRISTMAS IS	270	5778
CE0A	EASTER IS	212	5191	M1,9A1	SAN MARINO, SAN MARINO	55	4195	VR4	SCLMON IS	290	8493
CE0X	SAN FELIX IS	186	4629	MP4B	BAHRAIN IS	48	6646	VR5	TONGA IS, NUKUALOFA	260	7717
CE0Z	JUAN FERNANDEZ	185	5112	MP4D	DAS IS	47	6777	VR6	PITCAIRN IS	229	5790
CM,CO	CUBA, HAVANA	203	1308	MP4M	MUSCAT & OMAN, MASQAT	43	7056	VS5	BRUNEI	347	9237
CM2,8,9	MOROCCO, CASABLANCA	75	3579	MP4Q	CATAR	48	6700	VS6	HONG KONG	352	8082
CP	BOLIVIA, LA PAZ	173	3941	MP4T	TRUCIAL STATES	47	6871	VS9A,P,5	SOUTH YEMEN, ADEN	61	7074
CR3	PORTUGUESE GUINEA, BISSAU	102	4023	OA	PERU, LIMA	184	3650	VS9K	KAMARAN IS	61	6882
CR4	CAPE VERDE IS	105	3436	OD5	LEBANON, BEIRUT	53	5593	VU	INDIA, CALCUTTA	18	7896
CR5	PRINCIPE & SAO TOME IS	95	5714	OE	AUSTRIA, VIENNA	50	4224	VU4	LACCADIVE IS	39	8363
CR6	ANGOLA, NOVA LISBOA	100	6814	OH	FINLAND, HELSINKI	35	4128	VU5	ANDAMAN & NICOBAR IS	16	8713
CR7	MOZAMBIQUE, LOURENCO MARQUES	101	8238	OH0	ALAND IS	36	3976	XE,XF,4A	MEXICO, MEXICO CITY	232	2103
CR8	PORTUGUESE TIMOR	325	9935	OK,OL	CZECHOSLOVAKIA, PRAGUE	49	4078	XE4	REVICLAGGEDO IS	247	2644
CR9	MACAO	352	8082	ON	BELGIUM, BRUSSELS	51	3649	XT2,FF8	UPPER VCLTA, QUAGADOUGOU	92	4751
CT1	PORTUGAL, LISBON	69	3377	OX,XP	GREENLAND, GODTHAB	22	1841	XU	CAMBODIA, PHNOM PENH	1	8805
CT2	AZORES IS	79	2445	OY	FAEROES IS, TORSHAVN	38	3072	XW8	LAOS, VIENTIANE	3	8386
CT3	MADEIRA IS	81	3149	OZ	NORWAY, COPENHAGEN	42	3860	XZ2	BURMA, RANGOON	11	8409
CX	URUGUAY, MONTEVIDEO	165	5361	PA,PE,PI	NETHERLANDS, AMSTERDAM	49	3665	YA	AFGHANISTAN, KANDAHAR	34	6784
DC,DJ-L	W. GERMAN FEDERAL REP., BONN	50	3770	PJ2	NETH. ANTILLES, CURACAO	170	2009	YB-D,8F,P,KN	INDONESIA, DJAKARTA	358	10049
DM	E. GERMAN DEM. REP., BERLIN	46	3966	PJ3,9	NETH. ANTILLES, ARUBA	171	1932	YI	IRAQ, BAGHDAD	48	6005
DU	PHILIPPINES, MANILA	343	8478	PJ4,9	NETH. ANTILLES, BONAIRE	168	2020	YJ,FUB	NEW HEBRIDES, VILA	274	8481
EA	SPAIN, MADRID	66	3591	PJ5	NETH. ANTILLES, ST. EUSTATIUS	155	1768	YK	SYRIA, DAMASCUS	53	5682
EA6	BALEARIC IS	64	3956	PJ6	NETH. ANTILLES, SABA	154	1703	YN,HT	NICARAGUA, MANAGUA	203	2113
EA8	CANARY IS	85	3422	PJ7	NETH. ANTILLES, SINT MAARTEN	154	1703	YO	ROMANIA, BUCHAREST	49	4777
EA9	CEUTA & MELILLA	71	3665	PY	BRAZIL, BRASILIA	131	4265	YS	EL SALVADOR, SAN SALVADOR	210	2054
EI	SPANISH SAHARA(ARIO DE ORD)	89	3675	PY7	FERNANDO DE NORONHA	129	4078	YU,YT	YUGOSLAVIA, BELGRADE	51	4495
EL,5L	IRELAND, DUBLIN	51	3202	PY0	TRINDADE & MARTIN VAZ IS	137	5159	YV	VENEZUELA, CARACAS	166	2168
EP	LIBERIA, MONROVIA	89	5698	PZ	SURINAM, PARAMARIBO	149	2676	YV0	AVES IS	166	2032
ET3	IRAN, TEHRAN	42	6158	SK,SL,SM	SWEDEN, STOCKHOLM	38	3943	ZA	ALBANIA, TIRANA	55	4651
F	ETHIOPIA, ADDIS ABABA	68	6990	SP,3Z	POLAND, WARSAW	44	4276	ZB2	GIBRALTAR	66	4154
F	FRANCE, PARIS	54	3617	ST	SUDAN, KHARTOUM	67	6362	ZC4,5B4	CYPRUS, NICOSIA	53	5462
F80Z	AMSTERDAM & ST. PAUL IS	92	10953	SU	EGYPT, CAIRO	58	5608	ZD3	GAMBIA, BATHURST	102	3927
F80W	CROZET IS	116	9767	SV	GREECE, ATHENS	55	4946	ZD5,Z57	SWAZILAND, MBABANE	102	8135
F80X	KERGUELEN IS	120	10573	SV	CRETE	57	5118	ZD7	ST. HELENA IS	108	6441
FC	CORSICA	59	4132	SV5	DODECANESE IS	55	5162	ZD8	ASCENSION IS	116	5086
FG7	GUADELOUPE IS	153	1856	TA,TC	TURKEY, ANKARA	49	5230	ZD9	TRISTAN DA CUNHA & GOUGH IS	135	6659
FH8,F8B	CCMORO IS	81	8180	TF	ICELAND, REYKJAVIK	34	2614	ZE	RHODESIA, SALISBURY	95	7810
FK8	NEW CALEDONIA, NOUMEA	271	8749	TG	GUATEMALA, GUATEMALA CITY	213	2019	ZF1,VP5	CAYMAN IS	195	1541
FL8	FRENCH SCAMILAND, DJIBOUTI	63	7032	TI	COSTA RICA, SAN JOSE	199	2208	ZK1	COOK IS	251	6811
FM7	MARTINIQUE	152	1945	TJ9	COCOS IS	200	2578	ZK1	MANIHITI IS	260	6463
F08	FRENCH POLYNESIA, TAHITI	247	6280	TJ,FE8	CAMEROON, YAOUNDE	90	5841	ZK2	NIUE IS	259	7375
F08	CLIPPERTON IS	235	3008	TL8,FQ8	CENTRAL AFRICAN REP., BANGUI	85	6207	ZL	NEW ZEALAND, AUCKLAND	250	8818
FP8	ST. PIERRE & MIQUELON IS	58	999	TN8,FQ8	CONGO REPUBLIC, BRAZZAVILLE	94	6359	ZL	AUCKLAND & CAMPBELL IS	235	9554
FR7	GLORIOSO IS	78	8341	TR8,FQ8	GABON REPUBLIC, LIBREVILLE	95	5864	ZL	CHATHAM IS	239	8652
FR7	JUAN DE NOVA	86	8397	TT8,FQ8	CHAD REPUBLIC, FORT-LAMY	81	5640	ZL	KERMADEC IS	254	8227
FR7	REUNION IS, SAINT-DENIS	81	9189	TU2,FF4	IVORY COAST, ABIDJAN	99	4960	ZM7	TCKELAU IS	268	7043
FR7	TROMELIN	77	8923	TY,FF8	DAHOMY REP., PORTO NOVO	94	5279	ZP	PARAGUAY, ASUNCION	164	4661
FS7	SAINT MARTIN IS	154	1703	TZ,FF8	MALI REPUBLIC, BAMAKO	96	4393	ZS1,2,4-6	SOUTH AFRICA, CAPE TOWN	116	7803
F08,YJ	NEW HEBRIDES, VILA	274	8481	UA,K,V,W	EUROPEAN RUSS.S.F.S.R., MOSCOW	34	4676	ZS2	PRINCE EDWARD & MARION IS	121	9143
FW8	MALLIS & FUTUNA IS	267	7525	UA1,UK	FRANZ JOSEF LAND	8	3825	ZS3	S.W. AFRICA (NAMIBIA), WINDHOEK	107	7301
FY7	FRENCH GUIANA, CAYENNE	61	7903	UA2,UK	KALININGRADSK	41	4136	3A	MCNACO	57	3977
G	ENGLAND, LONDON	52	3486	UA,K,V,W	ASIATIC RUSSIAN S.F.S.R.	13	5694	3B6,VQ8	AGALEGA IS	69	8796
GC	GUERNSEY & DEPENDENCIES	55	3447	UB,K,T5,Y	UKRAINIAN S.S.R.	42	4790	3B8,VQ8	MAURITIUS IS	78	9302
GC	JERSEY IS	55	3447	UC2,UK	WHITE RUSSIAN S.S.R.	40	4445	3B9,VQ8	RODRIGUEZ IS	73	9556
GO	ISLE OF MAN, DOUGLAS	49	3266	UD6,UK	AZERBAIDZHAN S.S.R.	41	5752	3C,EA0	EQUATORIAL GUINEA, BATA	92	5826
GI	NORTHERN IRELAND, BELFAST	48	3172	UF6,UK	GEORGIAN S.S.R.	42	5544	3V8	TUNISIA, TUNIS	63	4355
GM	SCOTLAND, GLASGOW	46	3235	UG6,UK	ARMENIAN S.S.R.	44	5610	3W8,XV5	S. VIETNAM, SAIGON	359	8874
GW	WALES, CARDIFF	53	3362	UH8,UK	TURKISH S.S.R.	33	6166	4S7	CEYLON, COLOMBO	33	8763
HA,HG	HUNGARY, BUDAPEST	50	4380	UI8,UK	UZBEK S.S.R.	30	6218	4U	UNITED NATIONS, GENEVA	56	3671
HB	SWITZERLAND, BERN	54	3884	UJ8,UK	TADZHIK S.S.R.	26	6514	4W1,3	YEMEN, SANA	60	6927
HB0,HE	LIECHTENSTEIN, VADUZ	53	4011	UL7,UK	KAZAKH S.S.R.	24	5891	4X4,4Z4	ISRAEL, TEL AVIV	54	5688
H8	EQUADOR, QUITO	186	2826	UM8,UK	KIRGHIZ S.S.R.	23	6476	5A	LIBYA, TRIPOLI	65	4649
HC8	GALAPAGOS IS	204	2987	UO5,UK	MOLDAVIAN S.S.R.	45	4767	5H3,VQ3	TANGANYIKA, DAR-ES-SALAAM	80	7747
HI	HAITI, PORT-AU-PRINCE	175	1506	UP2,UK	LITHUANIAN S.S.R.	39	4237	5N2,ZD2	NIGERIA, LAGOS	94	5279
HI	DOMINICAN REP., SANTO DOMINGO	170	1589	UQ2,UK	LATVIAN S.S.R.	38	4234	5R8,F88	MALAGASY REP., TANANARIVE	84	8742
HK	COLOMBIA, BOGOTA	180	2539	UR2,UK	ESTONIAN S.S.R.	36	4163	5T5,FF7	MAURITANIA, NOUAKCHOTT	97	3761
HK0	MALPELO IS	193	2586	VE1	CANADA, HALIFAX	56	592	5U7,FF8	NIGER, NIAMEY	88	4874
HK0	SAN ANDRES & PROVIDENCIA IS	194	1961	VE2	CANADA, MONTREAL	1	367	5V,FD	TCCO, LCMC	95	5175
HM,HL9	KOREA, SEOUL	343	6846	VE3	CANADA, TORONTO	314	339	5W1,ZM6	WESTERN SAMOA, APIA	264	7263
HP	PANAMA, PANAMA	191	2222	VE4	CANADA, WINNIPEG	308	1278	5X5,VQ5	UGANDA, KAMPALA	79	7065
HR	HONDURAS, TEGUCIGALPA	207	2004	VE5	CANADA, SASKATOON	308	1734	5Z4,VQ4	KENYA, NAIROBI	77	7368
HS	THAILAND, BANGKOK	6	8654	VE6	CANADA, EDMONTON	310	2008	601,2,6	SGMALI REP., MOGADISHO	69	7624
HV	VATICAN CITY	57	4265	VE7	CANADA, VANCOUVER	300	2421	6W8,FF8	SENEGAL REP., DAKAR	100	3838
HZ,7Z	SAUDI ARABIA, MECCA	58	6395	VE8	CANADA, WHITEHORSE	320	2870	6Y5,VP5	JAMAICA, KINGSTON	187	1580
I,IR0	ITALY, ROME	57	4265	VK,AX	AUSTRALIA, BRISBANE	274	9622	7G1,3X	REP. OF GUINEA, CONAKRY	102	4217
IS	SARDINIA	61	4201	VK2	LORD HOWE IS	264	9478	7P8,ZS8	LESOTHO, MASERU	107	8048
IT	SICILY	61	4540	VK7	TASMANIA IS, HOBART	252	10348	7Q7,ZD6	MALAWI, BLANTYRE	90	7935
JO	OGASAWARA IS (BONIN)	333	6720	VK9AA-MZ	PAPUA & NEW GUINEA TERR.	299	9115	7X,FA	ALGERIA, ALGIERS	66	4023
JA,JH,JR	JAPAN, TOKYO	327	7226	VK9N	NORFOLK IS	263	8908	7Z,HZ	SAUDI ARABIA, MECCA	59	6445
JO1	MINAMI-TORI-SHIMA IS (MARCUS)	316	7012	VK9X	CHRISTMAS IS	0	10327	8P6,VP6	BARBADOS IS, BRIDGETOWN	152	2098
JT1	MONGOLIA, ULAN BATOR	359	6315	VK9Y	COCOS IS	18	10393	8Q4,V59M	MALDIVES IS	43	8783
JW,LA/P	SVALBARD IS	15	3542	VK0	HEARD IS	130	10699	8R,VP3	GUAYANA, GEORGETOWN	153	2534
JX,LA/P	JAN MAYEN IS	22	3057	VK0	MACQUARIE IS	229	9869	8Z4	SAUDI ARABIA/IRAQ NEUTRAL ZONE	50	6250
JY	JORDAN, AMMAN	53	5730	VO1	NEWFOUNDLAND, ST. JOHNS	57	1154	9G1,ZD4	GHANA, ACCRA	96	5122
KB6	BAKER, CANTON, & OTHER IS	278	6847	VO2	LABRADOR, HOPEDALE	26	1236	9H1,ZB1	MALTA, VALLETTA	62	4625
KC4	NAVASSA IS	182	1571	VP1	BRITISH HONDURAS, BELIZE	211	1837	9I,9J,VQ2	ZAMBIA, LUSAKA	94	7526
KC6	CAROLINE IS	312	8187	VP2A	ANTIGUA, SAINT JOHNS	153	1792	9K2	KUWAIT, AL-KUWAIT	48	6369
KG4	GUANTANAMO BAY, CUBA	182	1433	VP2D	DOMINICA	152	1945	9K3,8Z5	KUWAIT/S. ARABIA NEUTRAL ZONE	49	6290
KG6	GUAM	319	7795	VP2E	ANGUILLA	154	1703	9L1,ZD1	SIERRA LEONE, FREETOWN	103	4360
KG6I	BONIN IS (OGASAWARA)	327	7226	VP2G	GUENADA & DEPENDENCIES	156	2117	9M2,V51	WEST MALAYSIA, KUALA LUMPUR	6	9418
KG6I	MARCUS IS (MINAMI-TORI-SHIMA)	316	7012	VP2K	ST. KITTS, NEVIS	155	1768	9M6,V54	EAST MALAYSIA, KUCHING	354	9486
KG6R,S,T	MARIANA IS (SAIPAN)	317	7819	VP2L	ST. LUCIA	153	2009	9N1	NEPAL, KATHMANDU	19	7513
KH6	HAWAII, HONOLULU (KURE IS)	283	4981	VP2M	MONTERRAT	153	1792	9Q5,0Q5,0	REP. OF THE CONGO, KINSHASA	94	6359
KJ6	ALASKA, ANCHORAGE	287	5764	VP2S	ST. VINCENT & DEPENDENCIES	154	2074	9U5	BURUNDI, BUJUMBURA	84	7046
KL7	ALASKA, ANCHORAGE	321	3369	VP2V	BRITISH VIRGIN IS	156	1681	9V1,9M4	SINGAPORE	3	9564
KW6	MIDWAY IS	299	5602	VP5	TURKS & CAICOS IS	174	1299				

WORLD WIDE QSL BUREAUS

AP	Pakistan Amateur Radio Society, QSL Bureau, P O Box 65, Lahore, West Pakistan, Asia	KR6	QSL Bureau, OARC, APO San Francisco 96331, USA	VP8	Falkland Is & South Georgia - direct or the CX QSL Bureau, P O Box 37, Montevideo, Uruguay, South America
CE	Radio Club de Chile, P O Box 13630, Correo 15, Santiago, Chile, South America	KR8	QSL Bureau, RARC, CPO Box 96, Naha, Okinawa	VP9	All other VP8 bases via - RSGB, England
CM-CO	Federacion de Radioaficionados de Cuba, P O Box 6996, Havana, Cuba	KS4	Swan Island, West Indies, via Tampa, Florida, USA	VQ1	Radio Society of Bermuda, P O Box 275, Hamilton, Bermuda
CN	ARRAM, P O Box 299, Rabat, Morocco, Africa	KV4	Graciano Belardo, KV4CF, P O Box 572, Christiansted, St. Croix 00820, Virgin Is, West Indies	VR2	The RSEA QSL Bureau, P O Box 2387, Dar-Es-Salaam, Tanzania, East Africa
CN9	Amateur Radio Club Zona Norte, P O Box 124, Tetuan, Morocco, Africa, or via URE or AEM	KW6	Jack A Chalk, P O Box 7, Wake Island 96930	V55	The QSL Bureau, P O Box 184, Suva, Fiji Islands
CP	Radio Club Boliviano, P O Box 2111, La Paz, Bolivia, South America	KX6	Kwajalein Amateur Radio Club, KX6BU, P O Box 444, APO San Francisco 96555, USA	V56	SARTS, P O Box 2728, Singapore 1, Asia
CP5	QSL Bureau, P O Box 1900, Cochabamba, Bolivia, S.A.	KZ5	Eniwetok Amateur Radio Club, Air Force Western Test Range, APO San Francisco 96333 USA	VS9M	Hong Kong Amateur Radio Transmitting Society, P O Box 541, Hong Kong, Asia
CP6	QSL Bureau, P O Box 393, Santa Cruz, Bolivia, S.A.	LA	Via KZ5GS, Gloria M Spears, P O Box 407, Balboa, Canal Zone, Central America	VU	RGSB, 28 Little Russell St, London WC 1, England
CR4	Radio Club de Cabo Verde, CR4AA, Praia, Sao Tiago, Cape Verde Islands, Africa	LU	Nonwegian Radio Relay Liga, P O Box 21, Refstad, Oslo 5, Norway, Europe	W1-K1	Amateur Radio Society of India, P O Box 534, New Delhi 1, India, Asia
CR6	LARA, P O Box 484, Luanda, Angola, Africa	LX	RCA, Radio Club Argentino, Carlos Calvo 1424, Buenos Aires, Argentina, South America	W2-K2	Foreign stations only, via Hampden County A R Assn, Box 216, Forest Park Stn, Springfield, Mass 01108
CR7	LREM, Liga dos Radio Emissores do Mocambique, P O Box 812, Lourenco Marques, Mozambique, Africa	LZ	Robert Scholt, LX1DC, 35 Rue Batty Weber, Esch s/Alzette, Luxembourg, Europe	W3-K3	Foreign stations only, via North Jersey DX Assn, P O Box 505, Ridgewood, New Jersey 07451
CR9	Hong Kong Amateur Radio Transmitting Society, P O Box 541, Hong Kong, Asia	M1	Central QSL Bureau, Box 830, Sofia, Bulgaria, Europe	W4-K4	Foreign stations only, via W3KT, Jesse Bleiberman, RFD 1, Valley Hill Rd, Melfort, Neb. 68601
CT	REP, P O Box 2483, Lisbon, Portugal, Europe	MP4	Geom Mario Graziani, M1B, via Della Tana 226, Republic of San Marino, Europe	W4-WB4-WN4	Foreign stations only, via W4LR, J R Baker, P O Box 1989, Melbourne, Florida 32901
CX	Radio Club de Uruguay, P O Box 37, Montevideo, Uruguay, South America	OE	Ian Cable, MP4BBW, Box 425, Awali, Bahrain Is, Asia	W5-K5	Foreign stations only, via W5QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
DA,B,C,F,J,K,L	DARC QSL Bureau, P O Box 86 03 20, 8 Munich 86, West German Federal Republic, Europe	OH	RCP, Radio Club de Peru, Box 538, Lima, Peru, S.A.	W6-K6	Foreign stations only, via W5QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
DA2-DL5X-Y	J T Worrall, DL2AH, Am alten pulverschuppen 80, 3090 Verden Aller, Germany	OK-OL	RAL QSL Bureau, Box 1217, Beirut, Lebanon, Asia	W7-K7	Foreign stations only, via W6QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
DA2-DL5S	R T French, Via REF QSL Bureau, P O Box 70, 75 Paris 12e, France, Europe	OR	OE, VSV QSL Bureau, P O Box 999, Vienna 1/9, Austria	W8-K8	Foreign stations only, via W7QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
DL4-5	QSL Bureau, 7172 Hesselant-Schwaebisch Hall Flugplatz, 14th AVN Co - ATC, APO New York 09025	OX4	SRAL QSL Bureau, P O Box 10306, Helsinki 10, Finland	W9-K9	Foreign stations only, via W8QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
DM	QSL Bureau, P O Box 30, Berlin 55, East German Democratic Republic, Europe	OX5	Central Radio Club, P O Box 69, Praha 1, Czechoslovakia	W0	Foreign stations only, via W9QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
DU	PARA QSL Bureau, P O Box 4083, Manila, Philippines	OY	UBRC, P O Box 634, Brussels 1, Belgium, Europe	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
EA	URE, Union of Radioaficionados Espanoles, P O Box 220, Madrid, Spain, Europe	OZ	Or UBR, P O Box 224, Brussels 1, Belgium	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
EI	IRTS QSL Bureau, P O Box 462, Stella Av, Dublin 20124, Ireland	PA-PE-PI	UBA, P O Box 634, B-1000 Brussels, Belgium	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
EL	Or EI-QSL-Bureau, P O Box 73, Athlone, Ireland	OR	EDR QSL Bureau, Ingstrup, 9480 Lokken, Denmark	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
EP	Cards for EL1 & 2 only - G Marcus Kelly, c/o Liberian Govt. Radio Stn, Monrovia, Liberia, Africa	OX4	OX4FA-OX4HZ via MARS Director, XP1AB, 2004 Comm Sq, APO New York 09121 USA	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
ET3	Amateur Radio Society of Iran, c/o Box 1000 ARMISH-MAAG, APO New York 09205	OX5	OX5AA-OX5EZ via MARS Director, XP1AA, 1983 Comm Sq, APO New York 09023 USA	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
F	Telecommunications Amateur Radio Club, P O Box 1047, Addis Ababa, Ethiopia, Africa	OY	QSL Bureau, OY3B, Sofus Rubeksen, U Svarthofsi, DK-3800, Torshavn, Faeroes Island, Europe	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
F8B	Cards for U S Army Personnel may be sent via Kagnev Amateur Radio Club, ET3USA, APO New York 09843	OZ	EDR QSL-CENTRAL, Harry Sorensen, OZ6HS, Ingstrup-9480-Lokken, Denmark	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FG7	REF QSL Service, P O Box 70, Paris 12, France, Europe	PA-PE-PI	Dutch QSL Bureau, P O Box 400, Rotterdam, Netherlands	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FG7	REF QSL Service, P O Box 70, Paris 12, France, Europe	FJ	VERONA QSL Bureau, P O Box 383, Willemstad, Curacao, Netherlands Antilles, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FH8	Radio Club Guadeloupe, P O Box 387, Pointe-A-Pitre, Guadeloupe, West Indies	FJ	Cards for Aruba - Aruba Amateur Radio Club, Box 273, San Nicolas, Aruba, Netherlands Antilles, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FH8	QSL Manager, 5R8BC, P O Box 587, Tananarive, Madagascar, Africa	FY1	LABRE, Box 2353, Rio de Janeiro, Brazil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FK8	QSL Bureau, P O Box 637, Noumea, New Caledonia	FY2	LABRE, Box 22, Sao Paulo, SP, Brazil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FL8	REF QSL Service, P O Box 70, Paris 12, France, Europe	FY3	LABRE, Box 2180, Porto Alegre, RS, Brazil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FM7	REF QSL Service, P O Box 70, Paris 12, France, Europe	FY4	LABRE, R. Curitiba 656, Conjuntio 25, Belo Horizonte, MG, Brazil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FO8	Radio Club Oceanian, P O Box 374, Papeete, Tahiti	FY6	LABRE, Box 1455, Curitiba, PR, Brazil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FP8	R E F QSL Bureau, P O Box 70, Paris 12, France	FY7	LABRE, Av Mem De SA 99, Itapiranga, SC, Brazil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
FY7	R E F QSL Service, P O Box 70, Paris 12, France	FY8	LABRE, Box 1043, Recife, PE, Brazil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
G	RSGB, Radio Society of Great Britain, c/o Arthur Milne, G2MI, 29 Kechill Gdns, Hayes, Bromley, Kent, England BR2 7NA	FY9	Fernando de Noronha, via QSL Bureau, P O Box 1043, Recife, Pernambuco, Brazil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
GC-GD	I S W L QSL Bureau, 1 Grove Road, Lydney, Gloucestershire GL15 5JE, England	FY9	LABRE, P O Box 283, Manaus, Amazonas, Brasil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
GI	RSGB	FY9	LABRE, Box 2, Curitiba, MT, Brazil, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
GM-GW	RSGB	FY9	Direct or via LABRE, P O Box 1043, Recife, PE, Brasil	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HA-HG	HSRL, P O Box 214, Budapest 5, Hungary	FY9	Radio Clube Brasileiro RA-RH, P O Box 14630, Sao Paulo, SP, Brazil, South America	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HB	USKA, HB9NL, Sonnenrain 188, 6233 Bueron, Lucerne, Switzerland, Europe	FZ	VRAS, QSL Manager, P O Box 566, Paramaribo, Surinam, S.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HB0	USKA, HB9NL, Sonnenrain 188, 6233 Bueron, Lucerne, Switzerland, Europe	SK-SL-SM	PSK QSL Bureau, P O Box 12207, Eskende 7, Sweden	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HC	Guayaquil Radio Club, P O Box 5757, Guayaquil, Ecuador	SP	PZZ QSL Bureau, P O Box 320, Warsaw 1, Poland, Europe	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HC1	Asociacion Radio Ecuatoriana, P O Box 289, Quito, Ecuador, South America	SU	QSL Bureau, P O Box 840, Cairo, Egypt, Africa	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HC5	Cuenca Radio Club, P O Box 1366, Cuenca, Ecuador	SV	Mediterranean SV QSL Bureau, P O Box 564, Athens, Greece	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HH	Radio Club de Haiti, P O Box 708, Port-au-Prince, Haiti	SV0	Cards may also be sent via SV QSL Bureau, NARU, P O Box 1442, Athens 20, Greece	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HI	Radio Club Dominicano, P O Box 1157, Santo Domingo, D.N., Dominican Republic, West Indies	TA-TC	QSL Bureau, c/o MARS Station, P O Box 3055, APO New York 09223 USA	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HK	LCRA, Liga Colombiana de Radio Aficionados, P O Box 584, Bogota, Colombia, South America	TF	Turkey Radyo Amatörleri Cemiyeti, P O Box 699, Karakoy, Istanbul, Turkey, Asia	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HL9	All HL9 stations - address with call letters and name, c/o 8th U S Army Signal Officer, AC of SCE, APO San Francisco 96301	TF	IRA, Islenskir Radio Amatörar, P O Box 1058, Reykjavik, Iceland, Europe	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HM	KARL, Central Box 162, Seoul, Korea, Asia	TF	For American amateurs, P O Box 22, USNCS, FPO New York 09571 USA	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HM	North Korea - QSL Bureau, P O Box 39, Pyongyang, North Korea, Asia	TG	CRAC, P O Box 115, Guatemala City, Guatemala, C.A.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HP	LPRA QSL Bureau, P O Box 9A-175, Panama 9-A, Republic of Panama, Central America	TI	Radio Club de Costa Rica, P O Box 2412, San Jose, Costa Rica, Central America	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HR1-HR4	Radio Club Tegucigalpa, Box 149-c, Tegucigalpa, DC, Honduras	TN8	QSL Bureau, P O Box 2239, Brazzaville, Republic of Congo, Africa	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HR2	QSL Bureau, Radio Club de Honduras, P O Box 273, San Pedro Sula, Cortes, Honduras	TU2	ARAI, P O Box 20036, Abidjan, Ivory Coast, Africa	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HR3-HR6	HR3FJI, Av 14 De Julio, 3 Calle, La Ceiba, Atlántida, Honduras	VE1	Central Radio Club, P O Box 88, Moscow, Russia, Europe	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HR5	HR5NLC, Santa Rosa de Copan, Copan, Honduras	VE2	L J Fader, VE1FQ, P O Box 663, Halifax, Nova Scotia, Canada	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HS	STAR QSL Bureau, P O Box 2008, c/o GPO, Bangkok, Thailand, Asia	VE3	Russ H Buckley, VE3UW, 20 Almost Road, Downsview, Ontario, Canada	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HV	Domenico Petti, HV1CN, Vatican City, Europe	VE4	D E McVittie, VE4QX, 647 Academy Road, Winnipeg 9, Manitoba, Canada	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
HZ	Via HZ3TYQ, Victor L Crawford, P O Box 1721, Aramco, Dhahran, Saudi Arabia, Asia	VE5	VE5JL, A Lloyd Jones, 2328 Grant Rd, Regina, Saskatchewan, Canada	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
I	ARI, V Scarlati 31, 20124 Milano, Italy	VE6	K N Tettelear, VE6AAV, Sub. P O 55, North Edmonton, Alberta, Canada	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
JA	JARL, Japanese Amateur Radio League, P O Box 377, Tokyo, Japan, Asia	VE7	Henry R Hough, VE7HR, 1291 McKenzie Ave, Victoria, British Columbia, Canada	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
JT1	Radio Club JTIKAA, P O Box 639, Ulan Bator, Mongolia	VE8	George T Kondo, VE8RX, VEB ARRL QSL Bureau, Dept. of Transport, Norman Wells, NWT, Canada	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
JX	All JX stations - address with call letters and name, c/o Jan Mayen, Norwegian Embassy, Reykjavik, Iceland	VK1-VK2	VIA QSL Bureau, P O Box 1734, GPO, Sydney, NSW 2001, Australia	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KA	FEARLND, CMBR Box 1414, APO San Francisco 96525	VK3	QSL Bureau, E Trebilcock, 340 Gillies St, Thornbury, Victoria 3071, Australia	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KC4AA	Office of Antarctic Programs, National Science Foundation, Washington, D.C. 20550, USA	VK4	QSL Officer, Box 638, GPO, Brisbane 4001, Queensland, Australia	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KC4US	c/o Commander, Antarctic Support Activities, FPO New York 09501	VK5	QSL Bureau, c/o George Luxon, VK5RX, 27 Belair Rd, Torrens Park, South Australia 5062	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KC6	Caroline Islands cards are sent direct	VK6	QSL Bureau, c/o J Rumble, VK6RU, P O Box F319, GPO Perth, West Australia 6001	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KG4	Base Amateur Radio Office, Box 12, FPO New York 09593	VK7	QSL Bureau, Box 371B, GPO, Hobart, Tasmania 7001, Australia	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KG6	Mariana Islands, except Guam, sent cards direct	VK8-9-D-SWL	QSL Bureau, c/o R Jones, 23 Landale St, Box Hill, Vic 3128, Australia	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KG6	Guam only, via P O Box 445, Agaña, Guam, Mariana Is.	V01	Ernest Ash, V01AA, P O Box 6, St. Johns, Newfoundland, Canada	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KH6	John H Oka, KH6DDQ, P O Box 101, Alea, Oahu, Hawaii 96701	V02	Goose Bay ARC, P O Box 232, Goose Bay, Labrador, Canada	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KJ6	DET 1-1957 Comm Group AFCS, KJ6BZ, APO San Francisco 96305	VP2	Antigua - via Gerald Price, VP2AC, P O Box 114, St. Johns, Antigua, Leeward Is.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KL7	Mary Olendorf, KL7BJD, Star Rt C, Wasilla, Alaska 99687	VP2	Dominica - Rev. William B Surbrook, VP2DA, P O Box 64, Roseau, Dominica, Windward Is.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KM6	KM6BI, Box 43, FPO San Francisco 96614, USA	VP2	Grenada - Fred W Pressey, VP2GBL, P O Box 104, Grenada, Windward Is.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KP4	Alicia G Rodriguez, KP4CL, P O Box 1061, San Juan, Puerto Rico	VP2	St. Lucia - via Timothy A James, VP2LT, P O Box 322, Castries, St. Lucia, Windward Is.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
KP4	Novice cards only - the NNQB District QSL Manager, KP4QA, Jorge Blanch, Box 2573, San Juan, Puerto Rico	VP2	St. Vincent - via QSL Bureau, P O Box 142, St. Vincent, Windward Is.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
		VP7	Bahamas Amateur Radio Society, P O Box 6004, Nassau, Bahamas Is.	W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
				W0	Foreign stations only, via W0QJL, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701

WORLD TIME CONVERSION CHART IN HOURS

Greenwich Meridian Time, London, Eng- land.	Central Europe, Ber- lin, Geneva, Stock- holm, Vienna.	Eastern Europe, Ath- ens, Cape Town.	Arabia, Armenia, Ma- dagasc.	Mauritius, Iran.	Central Russia, Bom- bay, India.	Calcutta, Russia, Tibet.	Sumatra, Laos.	Philippines.	Central Australia.	Tokyo, Japan.	Eastern Australia.	Melbourne, Sydney.	New Caledonia.	International Date Line, New Zealand.	Fiji Islands.	Nome, Alaska.	Hawaii.	Midway Islands.	Eastern Alaska.	Dawson	Pacific Standard Time, Los Angeles, Seattle, Juneau.	Mountain Standard Time, Calgary, Denver, Phoenix.	Central Standard Time, Chicago, Costa Rica.	Eastern Standard Time, Montreal, New York, Peru.	Atlantic Standard Time, Argentina, Nova Scotia.	Greenland.	Brazil.	Azores.	Iceland.		
0000	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 AM	1 AM	Noon	Noon	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM					
0100	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	Noon	1 PM	Noon	1 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	11 PM	10 PM	11 PM		
0200	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	Noon	1 PM	Noon	1 PM	2 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	12 AM	11 PM	12 AM	Mid Night		
0300	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	Noon	1 PM	2 PM	1 PM	2 PM	3 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	12 AM	1 AM	2 AM	1 AM	2 AM	
0400	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	Noon	1 PM	2 PM	3 PM	2 PM	3 PM	4 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	1 AM	2 AM	3 AM	2 AM	3 AM	2 AM	3 AM
0500	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	Noon	1 PM	2 PM	3 PM	4 PM	3 PM	4 PM	5 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	1 AM	2 AM	3 AM	3 AM	4 AM	3 AM	4 AM	3 AM
0600	7 AM	8 AM	9 AM	10 AM	11 AM	Noon	1 PM	2 PM	3 PM	4 PM	5 PM	4 PM	5 PM	6 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	1 AM	2 AM	3 AM	4 AM	4 AM	5 AM	4 AM	5 AM	4 AM
0700	8 AM	9 AM	10 AM	11 AM	Noon	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	5 PM	6 PM	7 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	1 AM	2 AM	3 AM	4 AM	5 AM	5 AM	6 AM	5 AM	6 AM	5 AM
0800	9 AM	10 AM	11 AM	Noon	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	6 PM	7 PM	8 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	6 AM	7 AM	6 AM	7 AM	6 AM
0900	10 AM	11 AM	Noon	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	7 PM	8 PM	9 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	7 AM	8 AM	7 AM	8 AM	7 AM
1000	11 AM	Noon	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	8 PM	9 PM	10 PM	10 PM	11 PM	Mid Night	1 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	8 AM	9 AM	8 AM	9 AM	8 AM
1100	Noon	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	9 AM	10 AM	9 AM	10 AM	9 AM	10 AM
1200	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	10 PM	11 PM	Mid Night	1 AM	2 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	10 AM	11 AM	10 AM	11 AM	10 AM	11 AM
1300	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	2 AM	2 AM	3 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	11 AM	12 AM	11 AM	12 AM	11 AM	Noon	Noon
1400	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	2 AM	3 AM	3 AM	4 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	12 PM	1 PM	12 PM	1 PM	Noon	Noon	1 PM
1500	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	2 AM	3 AM	4 AM	4 AM	5 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	1 PM	2 PM	1 PM	2 PM	2 PM	Noon	2 PM
1600	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	2 AM	3 AM	4 AM	5 AM	5 AM	6 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	2 PM	3 PM	2 PM	3 PM	3 PM	3 PM	3 PM
1700	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	6 AM	7 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	3 PM	4 PM	3 PM	4 PM	4 PM	4 PM	4 PM
1800	7 PM	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	7 AM	8 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	4 PM	5 PM	4 PM	5 PM	5 PM	5 PM	5 PM
1900	8 PM	9 PM	10 PM	11 PM	Mid Night	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	8 AM	9 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	5 PM	6 PM	5 PM	6 PM	6 PM	6 PM	6 PM
2000	9 PM	10 PM	11 PM	Mid Night	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	9 AM	10 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	6 PM	7 PM	6 PM	7 PM	7 PM	7 PM	7 PM
2100	10 PM	11 PM	Mid Night	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	10 AM	11 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	7 PM	8 PM	7 PM	8 PM	8 PM	8 PM	8 PM
2200	11 PM	Mid Night	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	11 AM	12 PM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	8 PM	9 PM	8 PM	9 PM	9 PM	9 PM	9 PM
2300	Mid Night	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	12 PM	1 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	9 PM	10 PM	9 PM	10 PM	10 PM	10 PM	10 PM

With this chart you can convert standard time in any time zone to GMT or tell what time it is in other parts of the world. To correctly use this chart visualize each horizontal line as a complete circle. From your time zone tracing horizontally to the right (Counter Clockwise) it will be tomorrow when you pass midnight and yesterday when you pass the international date line. To the left (Clockwise) it will be yesterday when you pass the international date line. There is no change in date when you pass both midnight and the international date line going in one direction. For instance at 8 PM in New York Eastern Standard Time it is 2 AM tomorrow in Berlin, Germany and 11 AM tomorrow in Sydney, Australia. Always trace in the shortest direction from your time zone to find what time it is in any other zone.

ENGRAVED NAMEPLATES

FOR YOUR DESK, DOOR, RIG AND YOU!

Your name and call letters, or office title, engraved on any one of these attractive, modern design, duo-color, laminated phenolic nameplates. An efficient, thoughtful and important item for your home or office.

FOR YOUR DESK

1" x 7"
2" x 8"

Select the satin smooth, walnut grained or jet black nameplate with white letters (up to 20 letters and numbers per line), mounted in satin gold or silver finish, anodized aluminum holder. Two sizes as illustrated above.

FOR YOUR DOOR or rig

1" x 4"
1" x 7"
2" x 8"

Nameplates in three sizes for your door or rig in walnut grained or jet black, with white letters. Up to 18 letters per line on the 1" x 4" plate. Up to 20 letters on the others. Each with special adhesive back for immediate installation. No tools needed.

EXECUTIVE DESK SET

2" x 8"

Handsome desk set with either jet black or walnut grained nameplate (white letters), mounted in satin gold or silver anodized aluminum holder. Up to 20 letters per line. Two standard ball point pens included. Rear compartment for business cards, pads, etc.

BARBARA

W9XYZ

LAPEL PIN (with safety catch)
Your name and/or call letters engraved on a duo-color plastic pin. Size 1/2" x 2". Available in white letters on black, blue or red background. Also black letters on white background. Up to 12 letters—1 line only.
\$1.50
Illustrated one-half size

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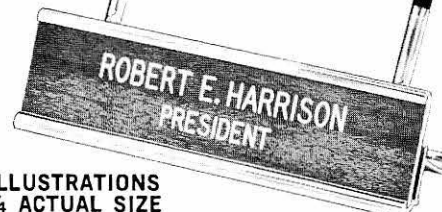
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<input type="checkbox"/> Door or rig	<input type="checkbox"/> Walnut Grained <input type="checkbox"/> Jet Black	<input type="checkbox"/> All letters same size <input type="checkbox"/> Large letters over small <input type="checkbox"/> Small letters over large	<input type="checkbox"/> 1"x4" <input type="checkbox"/> 1"x7" <input type="checkbox"/> 2"x8"	
<input type="checkbox"/> Exec. Desk Set	<input type="checkbox"/> Walnut Grained <input type="checkbox"/> Jet Black	<input type="checkbox"/> All letters same size <input type="checkbox"/> Large letters over small <input type="checkbox"/> Small letters over large		<input type="checkbox"/> Gold <input type="checkbox"/> Silver
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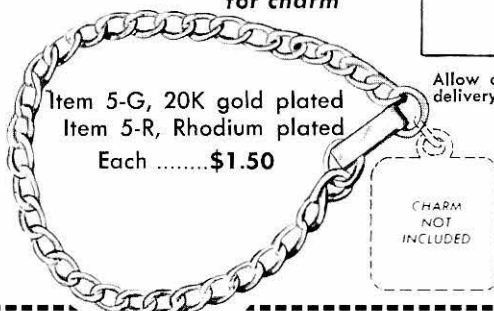


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CHARM
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I am Pegasus

... according to legend,
winged and with blazing hoofs,
mane flying, crossed the heavens with such speed I caused the
crash of lightning and the roar of thunder.

Of course, this is a myth, but what an exciting thought—to
race across the heavens with the speed legend gave me.
Naturally it's really impossible for me to have accomplished
such a feat but not for you ... a radio amateur.

You can reach the corners of the world ... with a turn of a
knob you can cross the heavens—the whole world is yours
... adventure is yours.

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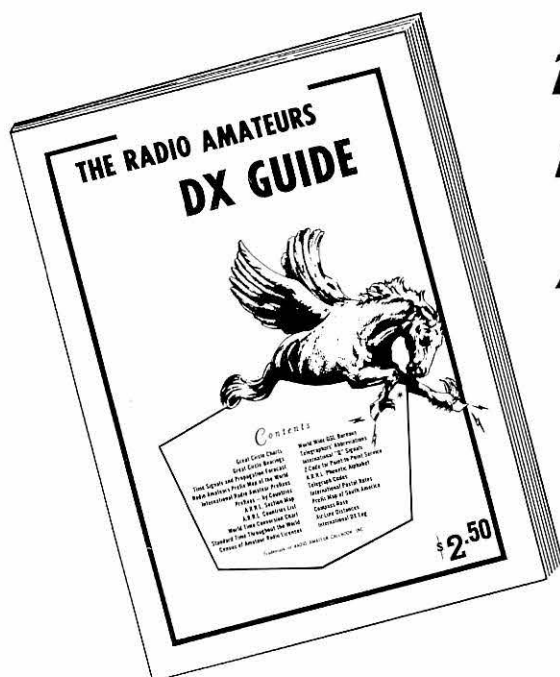
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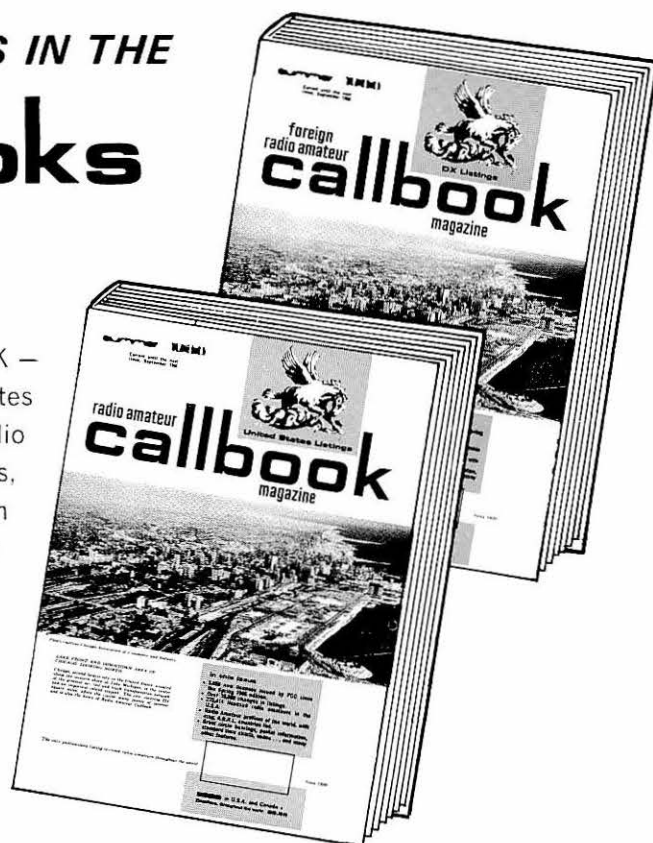
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